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THE ST. LOUIS EXPOSITION.

The Manufacturers' Record is represented at the exposition by Mr. Albert Phenix, its Southwestern representative, with office in the Missouri Trust Building.

THE TELEGRAM THAT MIGHT HAVE BEEN.

A grand chance to match Esopus was evidently lost last week at Oyster Bay. What might not have happened if the following telegram had been sent on Friday?

Oyster Bay, L. I., July 22, 1904.
Hon. Joseph W. Folk,
St. Louis, Mo.:

Dear Joe—Congratulations to Missouri for its recognition of militant honesty in you and for its promise of civic righteousness in itself.

THEODORE ROOSEVELT.

And the galleries waited but in vain.

THE SUN'S NEW SITE.

In announcing its selection of the commanding site at the southwest corner of Baltimore street and widened Charles street, The Sun emphasizes the dominant note of Baltimore in rebuilding its burned district, faith in the growth of the city and the determination to be ready to meet all the demands of that growth. At its strategic corner, where seven car lines intersect, and within a square of half a dozen other lines, The Sun will occupy a lot containing 6066 square feet, or 1941 square feet more than its historic site at South and Baltimore streets. This additional space on each floor of the new building will enable The Sun to meet with readiness and ease every requirement of its expanding business in all its departments for many years to come and to maintain itself as an index of the growth of the city toward whose material progress it has so mightily contributed during more than sixty years. Plans for the new building are yet to be announced, but it may be safely predicted that the wisdom and foresight which led to the selection of the new site after consideration of a dozen

corner lots will prevail in the arrangement and equipment of the new home of The Sun.

Advertisements of Southern localities offering special advantages for the location of manufacturing enterprises will be found on pages 58 and 59.

NEW RAILROADS IN SIX MONTHS

June was a dull month for railroad incorporations in the South, only 14 new companies being reported during the period. This makes a total of 107 new companies reported since January 1, the incorporations by months being as follows: January, 12; February, 10; March, 27; April, 14; May, 30; June, 14. In addition to the 14 new incorporations reported in June, one previously-existing company amended its charter to permit of additional construction, and the total mileage of these lines for the month is 898, making a total of 10,003 miles projected by these companies reported during the first six months of the current year. This, of course, does not include mileage projected by old companies under their regular charters, nor does it include several incorporations made in Louisiana and Arkansas covering lumber roads already built, and which had heretofore been operated merely as private enterprises, not doing business as common carriers. The incorporation of such lines has been brought about for the purpose of facilitating their business and to reap benefits which could not be legally obtained while they were privately operated.

The most important railroad enterprise incorporated during June is the South Atlantic & Mexican Gulf Railway, which is to be 325 miles long, extending from Savannah, Ga., southwest across that State into Florida, and terminating at a point on the Gulf coast, presumably near St. Andrews Bay. There is only one other incorporation in Georgia, that for the Natural Bridge Railway, which is building 12 miles of line. The Alexandria, Bayou Macon & Greenville Railway, which proposes to build a line about 190 miles long from Alexandria, La., to Greenville, Miss., is the next enterprise of importance on the list for the month, and if its entire plans are carried out it will be a railroad proposition of great magnitude, as its plan is ultimately to extend from Georgia westward through Alabama, Mississippi and Louisiana to a point on the Texas coast not far from the oil fields of the Lone Star State.

The Bay Minette & Fort Morgan Railroad was incorporated in Alabama to build 62 miles of line connecting Bay Minette and Fort Morgan in Baldwin county, opening up a new region of great agricultural capacity. It is proposed to build 45 miles of this line as speedily as possible. Then there is the Oklahoma & Cherokee Central Railway, chartered to build from Adair, I. T., to Blackwell, O. T., about 100 miles, making another important addition to the fast-growing railroad facilities of the

two great Territories that have but recently been opened to settlement. Another line which promises to be of importance is the projected Winchester & Washington Electric Railway, about 60 miles long, from Winchester, Va., to Washington, D. C.

Kentucky reports one road, the Mount Sterling Short Line, with nine miles projected. Missouri reports three—the Jerico & Southwestern, 20 miles; the Crawford County Midland, 6 miles, and the St. Louis, Webster & Valley Park Railway, about 12 miles long, making a total of 38 miles for the State. North Carolina displays one line, the New Hope Valley Railroad, to build about 20 miles, and South Carolina has the Lynches River Tramway Co., to build about 10 miles, while West Virginia reports the Monroe Central Railroad, to build about 40 miles of line, and the Allington Short Line, to construct about five miles. Arkansas notes the amendment of the Cache Valley Railroad's charter to build a 27-mile extension. No new incorporations were reported by Florida, Maryland, Mississippi, Oklahoma, Tennessee and Texas during the month.

The outlook for more incorporations of new railroads in the South remains excellent, and it is probable that much new construction will continue to be done by the old companies. The influx of settlers is rapidly opening up hitherto-neglected regions, and is constantly creating more and more demand for railroad facilities.

NATIONALISM WITH A VENGEANCE.

The readiness of many Southern papers to publish as news interviews and circulars that may tend to depress the price of cotton is one of the surprising features connected with the "bear" campaign. The Augusta Herald in a late issue published an interview with Theodore H. Price, giving it a double-column heading under the title, "A Big Cotton Crop: What It Means to the South and to the World This Year." In this interview Price endeavored to show why the South should want to produce 12,000,000 bales, to be sold at \$48-000,000, or eight cents a pound, and in closing said:

As the South is growing away from its sectionalism, so it is to be hoped it will grow away from the misconception that it can only be benefited through a failure of its principal crop, and that a condition of its prosperity is that the entire country shall pay high prices for one of the greatest necessities of civilized life.

It is an economic fact older than history that years of agricultural plenty mean a larger measure of comfort and prosperity for the whole community than the "lean" years can ever afford, and with the widening nationality of feeling that every day makes itself more and more apparent, Southern recognition of such an obvious truism must soon become nearly unanimous.

The progress of this season's cotton crop rises this year, therefore, to the importance of a national question. A crop failure means not so much higher prices as widespread financial disaster, while an abundant yield will be a factor of the very first importance in working a return of that prosperity

chiefly conspicuous through its absence for the past two years.

Is it possible to conceive of anything more absurd? And yet the public is expected to swallow such stuff. Of what value is it to the South to supply the world with one of its greatest necessities if it is to do so at a loss. Bread and meat are world necessities, and the cheaper their price the more the world can consume. Therefore, instead of raising 650,000,000 bushels of wheat and selling it at a fair profit, the West must be urged to raise 1,000,000,000 bushels and sell it at a loss, so that consumers elsewhere can have cheap bread. Meat-raisers must be made to see that the increase of meat consumption is so desirable that they must sell it below cost, and grow steadily poorer in order to fatten others. Iron and steel are great necessities of civilized life. The cheaper they can be bought, the better, some shallow people would claim, for the purchaser. At \$10 a ton the world's consumption of iron would be greater than at \$15 a ton, and many industries would thrive on this. Hence, the iron-makers must be told that as they are growing out of sectionalism they must be willing to crowd their furnaces to the utmost capacity and sell iron at \$10 a ton, even if by so doing they grow steadily poorer. What matters this poverty if the iron consumers are enriched? "Widening nationality of feeling" must be accepted by the South as a good reason for spending its energies of brain power and capital in producing a crop to be sold at or below cost for the benefit of others. These are the kind of arguments the South is expected to accept without question.

On the day in which the Augusta Herald containing this interview with Price was received the editor of the Manufacturers' Record met an Eastern cotton operator, who said: "Well, we are going to have a 12,000,000-bale crop this year, and we are going to get cotton down to eight to eight and one-half cents." When reminded that many changes might take place between the present condition and the final gathering of the crop, and when also reminded that even if weather conditions should be sufficiently favorable to produce a great crop, it might not be possible to pick it, he replied: "That is all true, and it is a question whether a big crop could be picked or not, but if the cotton is in the field it will help to 'bear' the price."

Comment is hardly necessary.

ATTRACTING EDUCATIONAL DONATIONS.

When it was announced that Dr. Edwin A. Alderman had been elected president of the University of Virginia, one of his admiring friends wrote:

It is something in his favor that he is thoroughly identified with prominent educators and men of means of the North who are interested in Southern education. Dr. Alderman has the confidence of these men, and he will make friends of them to the institution over whose affairs he has been called to preside. He is an attraction in

himself, and the university will get the benefit of his popularity.

The "prominent educators and men of means of the North who are interested in Southern education" were not named in that tribute, but it is evident that the reference was to Robert C. Ogden's party, inasmuch as the New York Tribune held the selection of Dr. Alderman as linking "the University of Virginia, with all its traditions and its powerful influence on Southern thought, with the movement for the democratization of education."

At first these utterances appeared to be mere ebullitions of enthusiasm, but since the acceptance of the offer by Dr. Alderman they have been given greater significance. For the Lynchburg News says:

It is to be hoped that President Alderman will be able to attract donations, which will give this institution an endowment that will place it on a footing of equality with similar institutions in other States and greatly extend the sphere of its usefulness in the cause of education and progressive science. No other institution in the Union enjoys a more enviable reputation or has sent out a greater number of distinguished alumni. * * * The university has accomplished wonders with limited means. What could it not do with an endowment of \$10,000,000? Let us hope that such an endowment will yet be forthcoming. The man who would make such a donation would forever link his name with that of the immortal Jefferson, the greatest statesman that this country has yet produced.

And what would Thomas Jefferson say to that?

The University of Virginia enjoys its enviable reputation and has accomplished wonders because it has not been on a footing of equality with institutions of higher education in other States. Other institutions have, it is true, been striving to reach a plane of equality where more energy seems to be exerted for the acquisition of money than for the production of men, and the decline in American scholarship and in educational ideals has marked the success in obtaining largesses from individuals upon whom the institutions have no claims except as mendicants. All persons who have at heart the welfare of the University of Virginia, that splendid type of the struggling which counts for so much in education, will regret if it should be brought down to a footing of equality with some of the newer, though heavily-endowed institutions of degeneracy in education. They will regret if the judgment of the New York Tribune shall prove to be correct, and if the magnificent traditions and powerful influence on Southern thought of the University of Virginia are to be used to further the movement for "democratization of education" in the South, which is in reality a movement for the cultivation of dependence in education. Better to have no cap at all than to use a cap in seeking donations.

SOUTHERN RAILROAD EARNINGS

In an article on railroad gross earnings for June and the half-year the Commercial and Financial Chronicle of New York says:

Not a few roads are able to record very substantial gains over their earnings for the first six months of last year. The roads distinguished in that way are mainly those located in the South, where the high price of cotton was a distinct advantage, and those in the Southwest, as also roads like the Union Pacific, none of which suffered from adverse weather conditions in the way the lines east of the Mississippi did. Furthermore, Southwestern systems had the benefit of the large grain crops of 1903 as compared with the smaller crops of 1902.

Among the increases in gross earnings for the first six months of 1904,

as compared with the corresponding period of 1903, were the following:

Southern Railway, \$932,516; Yazoo & Mississippi Valley, \$351,579; Seaboard Air Line, \$336,514; Missouri Pacific & Iron Mountain, Central Branch, \$281,192; Nashville, Chattanooga & St. Louis, \$259,173; Missouri, Kansas & Texas, \$187,355; St. Louis Southwestern, \$172,600; Alabama Great Southern, \$128,359; Alabama, New Orleans, Texas & Pacific Junction Railways (three roads), \$101,360. Roads reporting less than \$100,000 increase in gross earnings each are as follows: Cincinnati, New Orleans & Texas Pacific, Mobile, Jackson & Kansas City, Louisville & Nashville and Texas Central. Some roads have not reported for the six months, but among the increases noted for the first five months of 1904 are the following: St. Louis & San Francisco, including Chicago & Eastern Illinois, \$834,723; Atlantic Coast Line, \$488,392; Chesapeake & Ohio, \$313,487; Norfolk & Western, \$288,297; Kansas City Southern, \$145,791. Among the roads reporting less than \$100,000 increase for this period are the Louisiana & Arkansas, the Richmond, Fredericksburg & Potomac and the Georgia Railroad. Only three or four Southern and Southwestern roads report decreases for the six months, and, set beside the gains, they are comparatively small.

"CATCHING NEGROES YOUNG."

In a letter to the Manufacturers' Record Mr. J. E. Ingraham of St. Augustine, Fla., third vice-president of the Florida East Coast Railway, writes:

The longer I live in the South the more impressed I become with the fact that our negroes can become a most useful factor in the upgrowth of this great country. If they "are caught when young," and trained or taught how to do some useful work instead of to be "teachers," we would then in the South have an incomparable condition as to "trained helpers." We have among our railroad employes train porters, firemen, yard helpers, section men, carpenters, masons, waiters, etc. They are honest and reliable and make excellent citizens, and as soon as they acquire title to a little home they are as steady as any. It is the training that does it. If the young negroes in the South were compelled to go to the industrial schools until they learned how to do some useful thing and to acquire the habit of work, I think much of our troubles that grow out of idleness and whiskey would disappear. In some of the Northern States—New York, I think—attendance is compulsory. Why not to industrial schools, and so keep the young negro boys and girls off the streets?

Mr. Ingraham has put his finger upon one of the vital spots of the educational problem. A revival of the apprentice system, wisely adapted to unique conditions in which the negroes have been involved through no fault of their own, and supplemented by a rigorous enforcement of a vagrancy law, would undoubtedly do much to give the negro the start that he deserves, but from which he has been barred for more than a generation by mistaken policies in "education." To bring about this revolution to sanity, however, compulsory education of the type which has been essayed in other parts of the country should not be considered. That is fundamentally wrong in principle and practice, especially as its tendency is to confine individuals to reciting lessons at the age when they should be learning to do some useful thing and acquiring the habit of work.

But there is a form of compulsory education which recognizes the province of the State without infringing upon the rights and duties of parents, and without committing either to the policy of training children to useless-

ness. It looks to provision whereby the State, in the absence of inability of parents to provide for the grounding of their children in the fundamental elements of education, reading, writing and ciphering, will furnish such opportunities to children for three or four years, and then leave to parents the responsibility for further education. Those who wish their children to enjoy more advanced instruction in the schools should be given the privilege of doing so at their own expense. But it should be provided that children 12 or 14 years old, not thus provided for by their parents, shall be apprenticed by the State either to their parents or to others, who shall be paid by the State, to assure their learning some useful trade or business. In the comparative absence of industrial schools, the best provision for "catching negroes when young" in existing circumstances is that they be apprenticed at the suitable age to farmers, housewives, tradesmen and mechanics. For the average young negro the best industrial school is someone's cotton field or corn field, someone's shop or someone's kitchen. Properly-regulated apprenticeship there, with provision for some slight compensation from the educational fund of the State for the care and training of the apprentice between the ages of 12 and 18 or 14 to 20 years, as the case may be, would soon quiet all agitation in the South about the division of educational funds in proportion to taxes paid by the respective races, and in 20 years would solve the negro problem for all time.

TELLING FACTS FOR IMMIGRATION.

John Stewart Walker & Co. of Lynchburg, Va., are doing a work for immigration to the South which might well be undertaken by other real estate agents in the South. They are circulating a small pamphlet in which are condensed many facts about the opportunities of Virginia in agriculture, manufacturing, mining and lumbering, which are reinforced by letters from men who have moved from California, Wisconsin, South Dakota, Illinois, Indiana, Iowa, New York and New England, and have tested Virginia possibilities to their own great satisfaction. Such letters are the facts which count much for immigration. They may be duplicated in hundreds of Southern communities, and reputable real estate men are the ones to give them wide publicity.

ITALIANS IN AMERICA.

Capt. Salvatore Pizzati of New Orleans, who recently gave \$70,000 for the erection of St. Joseph's Parochial School and another \$75,000 to build an orphan asylum and industrial school, has announced his intention of providing for the construction of a charity hospital for the exclusive use of the Italian colony in that city. These gifts, it is stated, are in line with the purpose of Captain Pizzati, who is a native of Italy, to show his attachment to this country and to New Orleans, to divide his wealth in the building of American and Italian institutions. A further purpose in this division of liberality is to emphasize the cordial relations of himself, his fellows Italian-born and the people of this country. Captain Pizzati came to New Orleans as a boy and has amassed there a fortune from the fruit business. He is a striking illustration of what Italians may become in the South, and his acts of real philanthropy are calculated to make easier the way of the settlement in the South of Ital-

ians prepared to take advantage through thrift and industry of the opportunities awaiting them there.

FOR RAILROAD SUPPLIES IN CHINA.

The Manufacturers' Record has received the following letter:

Imperial Chinese Railway Administration.
Canton-Hankow Railway.
12 a Szechuen Road.

E. W. Mills, General Auditor.

Shanghai, June 6, 1904.

Manufacturers' Record, Baltimore, U. S. A.:
Dear Sirs—Please give free publication of the fact that we desire catalogues and price-lists of all kinds of railroad supplies addressed to our superintendent, Mr. Joseph Lind, Canton, China.

Correspondence from stationery, printing and office specialty houses should be addressed to me at Shanghai.

Thanking you in advance,

Yours truly,

E. W. MILLS, General Auditor.

Secretary of State Power of Mississippi is working to the utmost to meet the demand for information about the agricultural and industrial resources of the State. But he is unable to furnish up-to-date particulars. It would, therefore, seem that in the absence of an immigration bureau charged with the duty of collecting such data, the railroads of the State and the business organizations in its several cities might get together in some plan to aid the secretary of State in his laudible purpose of making known to the world the opportunities for men and money in Mississippi.

The Southern Farm Magazine.

It has been quite generally claimed that because of the increase in cotton acreage there has been a decrease this year in the acreage devoted to grain in the South. But the Southern Farm Magazine in its August issue, analyzing official figures for the corn acreage, shows that with the exception of four States, South Carolina, Alabama, Mississippi and Arkansas, in which the decrease was triflingly small, there has been an increase in the acreage in every Southern State. Comparing the average condition of the crop on July 1 of this year with that on the same date last year, it notes that in all the States except Florida, Alabama and Mississippi the average is higher. And it says that in view of the fact that the corn crop of 1903 was 640,000,000 bushels, against 570,000,000 for 1902, the probability of an even larger crop this year is of exceptional interest to the South. In 1903 the grain crop of the South was worth \$93,000,000 in excess of its value in 1902, thus materially aiding the increased value of cotton in adding to the great prosperity of Southern farming. It had been generally feared that with the high price of cotton the farmers would be tempted to turn their attention from diversified agriculture. But from many sections of the South come reports of abundant yields of fruit, truck and vegetables generally.

These advantages of the South are finding recognition in the expanding immigration to the South, phases of which are noted in this issue of the Magazine. Other features are the August talk with farmers, by Col. J. B. Killebrew; reviews from different standpoints of the cotton problem, by Prof. Andrew M. Soule and Harvie Jordan; a philosophical treatment of the subject of keeping boys on the farm, by W. T. Roberts, and other papers bearing upon the varied agricultural, educational and social activities of the South.

The Southern Farm Magazine is published monthly by the Manufacturers' Record Publishing Co., Baltimore, Md. Price \$1 a year.

SEEKING NEW POOLS.

Determined Efforts in Texan Oil Development.

[Special Cor. Manufacturers' Record.]
Beaumont, Texas, July 24.

Never before has there been such a determined effort to open up new oil pools in Southeastern Texas as is now being made. Each day brings a report of favorable indications at some point where drilling is progressing, and these serve to keep the oil market in a state of feverish sensitiveness. The money which is paying for the sinking of a majority of the wildcats is being furnished by men and companies who have operated with good success in the fields now producing. Hundreds of thousands of dollars are being spent by these men in search of new pools, and the entire region is benefited by the operations. In several localities the value of land has been materially advanced, with the result that property which would have been offered in vain at \$3 to \$5 an acre a year ago is now selling at from \$50 to \$100. These values, of course, are speculative, but they demonstrate what a little oil excitement will do.

Batson, without doubt, was the cause of more wildcat holes being started than had been any of its predecessors, for at Batson there was nothing but prairie and timber, with a salt marsh nearby. The Paraffine Oil Co., which drilled the wildcat well that developed the Batson pool, started with \$10,000 capital. Last month it paid a dividend of \$100,000, and tomorrow it will pay a dividend of \$50,000, a total of \$150,000 in two months, with more in sight, and a constantly-increasing surplus. The success this company has had has inspired many enterprises of a similar nature having as their object the development of prospective oil fields.

All of the wildcats are being watched, but probably none is subjected to a more constant scrutiny than the one drilling at Barbers Hill, between Beaumont and Houston, Texas, and south of both places. It was here that Patillo Higgins, "the father of Spindletop," invested the greater part of the money he made out of his Spindletop holdings. Higgins has said all along that Barbers Hill will surpass Spindletop. He has been pegging away for nearly three years at the development work. A number of successful operators have shown their faith in Higgins' judgment by starting a wildcat at Barbers Hill, and this well is now ready to drill into the rock.

All the oil so far found in this part of Texas has an asphalt base, but at South Bosque, near Waco, Texas, a very high-grade petroleum has been developed in a shallow well. Operators who have visited the South Bosque property say that the wells, although they may be small, yielding from five to eight barrels a day, will be valuable.

At Humble, near Houston, on the Houston, East & West Texas road, a wildcat well has developed fine gas showings, and some of the operators who have looked at it say it has indications equal to any wildcat well that has been sunk in this territory. Oil has also been found in a well at Hoskins Mound, near Velasco, Texas. At Matagorda (Big Hill) the two new wells did not make a good showing with compressed air, but the operators there say they will keep at it until they find the stuff. The syndicate well at Big Hill has produced more than 10,000 barrels of oil.

Any one of the many wells drilling in Jefferson, Hardin and Liberty counties, within a radius of 45 miles of Beaumont, may develop a pool like Batson. No one doubts that new pools will be found.

The Higgins Oil & Fuel Co. of Beaumont will pay a dividend of 1½ per cent.

tomorrow. This involves the disbursement of about \$31,000.

HOLLAND S. REAVIS.

Alabama Miners Out.

[Special Cor. Manufacturers' Record.]
Birmingham, Ala., July 26.

The United Mine Workers of the Alabama district, after a short session yesterday, declared in favor of a strike, and by this action have partially tied up the iron industries of the district. The movement affects more than 8000 workmen, who have been out of employment since July 1 waiting for adjustment of scale of wages.

The miners contend for a scale that equals the scale of last year, which calls for a minimum of 47½ cents per ton when iron is selling at \$8 per ton, and the operators offer a scale of seven and one-half cents per ton less. The miners claim that this means a reduction of 10 cents per ton on the minimum price heretofore prevailing. This is the first general strike ordered since 1894.

If joint commission is now called the operators would have to take the initiative, and their policy seems to be one of masterly inactivity. Beyond the statement of unsatisfactory conditions all is speculation. Time only will develop affairs. The price of iron is tending to greater firmness.

J. M. K.

Great Discovery of Ore.

A dispatch from Birmingham, Ala., says:

"About three years ago Messrs. Fred and Mac Sloss began investigation of what is known as the deposit of gray or magnetic ore, located at or near Sycamore, Ala., on the Alabama Mineral Division of the Louisville & Nashville Railroad, in Talladega county, lying in the ridge about one-quarter of a mile from the railroad. This investigation, by sampling and analyzing the ores, and partial furnace tests of same, led finally to a sale of the property to the Shelby Iron Co., T. G. Bush of Birmingham, D. H. Gordon, R. H. Edmonds and Wm. C. Seddon of Baltimore, Mr. C. Bradshaw of Birmingham retaining an interest, having been interested with the Messrs. Sloss. While the purchasers of this property had faith in its value, the investment was necessarily at first a speculative one. However, the new owners installed a complete plant as to mining machinery, crusher, tipples, houses, etc., and began development of the property. This development has been in process for 12 months, and has proven all that the owners expected—that is to say, they find a six-foot seam of ore running about two miles, which has been shown by varied analyses and thorough tests in the furnace to run between 46 and 47 per cent. metallic iron, with other elements about the same as the red ore in the Birmingham district, except that the ore has fluxing element equivalent to about 6 per cent. of carbonate of lime. The test in the furnace shows that the ore is as readily reducible as brown ore. The indications go to show that there is probably at least 10,000,000 tons, if not more, in the six-foot seam. Underlying this seam at a distance of only four feet is another seam containing nine feet of ore. It is leaner than the upper seam and may not be as profitable to work at this time, but it is the same kind of ore as the upper seam, and without doubt will be used some time in the future. If the ore in this seam should be included, it could be safely estimated that there is a total of 25,000,000 tons available ore in the two seams. Tests of mining show that the ore can be mined at a reasonable price. The location of this ore is advantageous for the furnace

plants on the Alabama Mineral Division, and the time may come when it can be transported to advantage to the Birmingham district. It is about eight miles from Sylacauga, about 12 miles from Talladega, 25 miles from Ironaton and about 40 miles from Anniston. The location is ideal for the erection of a furnace, as a bountiful supply of excellent water is furnished by two large creeks going through the property, and there is in sight probably the finest quality of fluxing material in the State—that is to say, this material is marble in its purest state. The acreage of this property is about 1800 acres, and there is also on the property, belonging to the owners of the property, some large deposits of undeveloped brown ore.

"This discovery of ore is of great interest to this section, as well as to the South, and goes to show that there may be other large supplies of ore in the South not yet discovered."

ARKANSAS LEAD AND ZINC.

Study of the Deposits in Northern Counties.

A lead and zinc-producing region of increasing economic importance is described in professional paper No. 24, recently published by the United States Geological Survey for gratuitous distribution. The author of the paper, which is entitled "Zinc and Lead Deposits of Northern Arkansas," is Dr. George I. Adams, who was assisted by Prof. A. H. Purdue of the University of Arkansas, and Mr. Ernest F. Burchard. Mr. E. O. Ulrich, who spent two weeks in the field collecting fossils and studying the rocks, adds a chapter on "The Determination and Correlation of Formations."

This report covers the whole of the Yellville quadrangle, of which a geologic folio is in preparation, together with portions of three adjacent quadrangles. It embraces Marion county and parts of Searcy, Boone and Newton counties. The stage of development of the field is such that the report is in a sense a preliminary one, as few of the ore bodies have been worked sufficiently to determine their extent. There are many openings and prospects, but few producing mines. Besides describing these mines and prospects, Dr. Adams discusses in detail the geological occurrence and origin of the various deposits, so that the paper will be of interest to both miner and geologist. Illustrations to the number of 27 add to the value of the report.

The principal ores of this district are zinc sulphide, or sphalerite, and lead sulphide, or galena. The zinc sulphide, which is commonly called blende or "jack," is composed, theoretically, of 67 per cent. of zinc and 33 per cent. of sulphur. By analyses specimens of this ore from Northern Arkansas average close to 66 per cent. of metal, but the ore as marketed is not always this pure, for when it is cleaned it is impossible to completely separate from it all other mineral matter. Lead sulphide occurs in well-defined crystals showing cubic form or as crystal aggregates. Pure galena contains 86.6 per cent. of lead and 13.4 per cent. of sulphur. When smelted it yields about 80 per cent. of lead, since a portion is volatilized and lost. The Northern Arkansas product contains practically no silver, which is sometimes a constituent of galena.

The completion of railroads already projected will afford facilities for shipping this Arkansas ore, so that mines which could not be operated will probably begin work. Although few of the mines are situated near the railroads, the distances which the product must be hauled will be so lessened that the ores can be marketed profitably. With the develop-

ment of the mines railroad spurs and branch lines will probably be built, and the field can assume its true commercial importance.

Although it is impossible to predict with certainty the future of the field, Dr. Adams ventures to assert that certain of the mines now opened are capable of a large output, and that many of the prospects warrant further exploitation.

COTTON AND BUSINESS.

Good Prices Bring Activity in Trade.

Mr. Thomas Sloo, president Whitney & Sloo Co., New Orleans, La., writes to the Manufacturers' Record as follows:

"Our business proves that a short crop of cotton and high prices make good trade for the South. We think that the saddlery, harness and collar business is the best index to general prosperity, as our goods are of such a character that they can easily be repaired and old goods used during hard times, and new goods are not a necessity except in a few cases. When good times come we feel the greatest benefit, as we probably feel the worst effects of general depression in the cotton section. The trade during the last two seasons has been the largest we have known during the 21 years we have been in business. This unusual business came entirely from the cotton country, as the rice and sugar districts were very much depressed, and did not buy their usual amount of goods. We think that the experience of the last two seasons proves conclusively the mistake in claiming that a large crop and low prices mean general prosperity to the cotton-producing South. It may mean prosperity to the transportation companies and the laborers who handle the cotton in its raw state, but it does not mean prosperity to the farmers and the general storekeepers."

Made a Quick Sale.

Illustrating the advantages of the Southern Farm Magazine of Baltimore as an advertising medium is the experience of the Louisiana Rice Prairie & Canal Co., Ltd., as detailed by its manager, Mr. O. W. Crawford of St. Louis, Mo. An advertisement of the company was published in the June issue of the Magazine. On June 3 Mr. Crawford received a letter from Jesse D. Trueblood of Danville, Ill., saying that he had seen the advertisement asking for detailed information about the lands in Louisiana. Correspondence led to a visit to Louisiana and to the sale on July 11 of 130 acres of land to Mr. Trueblood for \$3120. He remained in Louisiana to build a house and to improve his property at once.

Building at Meridian.

Buildings in course of erection at Meridian, Miss., represent an investment of \$465,000, while others to be erected this year represent \$415,000. Buildings already completed since January 1 represent \$305,000. The assessed valuation of Meridian property is \$6,700,000, an increase of \$500,000 over last year.

Dr. John N. Jacobs of Lansdale, Pa., has written to Austin, Texas, that he will submit to the city as soon as possible a definite proposition regarding his offer to rebuild the dam there.

Thomasville, Ga., has organized a board of trade with Mr. James F. Evans, president; C. R. Poole, vice-president; J. C. Turner, secretary, and W. A. Watt, treasurer.

It is estimated that the total cost of all improvements in Baltimore under the auspices of the burnt district commission will be \$8,000,000.

THE CLEMSON AGRICULTURAL COLLEGE.

State Agricultural and Mechanical College of South Carolina.

By PATRICK HUES MELL.

[Written for the Manufacturers' Record.]

Clemson Agricultural College belongs to the entire people of South Carolina. It is in no sense limited or narrowed by the laws of Congress or of the State authorizing its being. It was established for the "industrial classes" for the purpose of giving them an adequate and liberal education in all the subjects of learning which relate to agricultural and mechanical pursuits. In other words, its establishment was for the purpose of educating the sons of South Carolina citizens in those subjects which will render them capable of developing all the resources, natural and industrial, of the entire State.

The college has now been in existence 14 years, the charter being dated November, 1889. Four of these were spent in clearing a way, erecting the necessary buildings and in the installation of the proper appliances required for the execution of its mission. From the time the board of trustees first met in 1889, to 1893, when the students first applied for entrance into the institution, a great deal of work was accomplished in clearing away the forests and laying the foundations of the large buildings and electing the faculty.

At the opening of 1893 something over 600 boys applied for entrance, and work began in earnest to educate the sons of the industrial classes of the State.

In the work of a college like this one can only approach a conception of its usefulness and the extent of its work by having before him the entire structure in all of its relationship. In other words, the man who is so placed is like the observer who stands at a distance and looks at a magnificent mountain, towering up above the plains, in all its grandeur and sublimity. On the other hand, the man who is disposed to criticize the college with a limited amount of information in his possession is like the observer who stands at the foot of this great mountain, thoroughly unconscious of the lofty crags, the beautiful valleys, the sublime heights and the general grandeur of the scenery.

If it were possible for me so to place the work and the purposes of Clemson College before the people so that they may fully comprehend what has been done and what its future is sure to be, I feel that I will have accomplished a valuable piece of work, and I am convinced that the citizens who are willing to look at the college with unbiased eyes will feel that the State has a splendid institution in Clemson Agricultural College.

The following figures show how many boys have during its existence been in touch with the chances and opportunities offered here, and how many have gone through the courses and graduated, and to some extent what those boys are now doing in filling important places in the serious walks of life:

Total number of students attending the college from 1893 to 1904, 2950; total number of graduates, 295. The graduates of the college are engaged in the following professions: Civil engineering, 10; mechanical and electrical engineers, 60; professors in colleges, 7; agriculturists, 27; departments at Washington, 11; cotton factories, 32; chemists, 6; United States army, 2; United States navy, 10; teachers, 10; experiment stations, 1; physicians, 8; pharmacists, 1. Many are engaged in other pursuits.

For some years the institution has been unable to accommodate all the students

who have applied for admission. In the session just closed (1903-1904) 69 boys were turned off because of lack of room. Applications are made by parents a year in advance, and at this writing (July 12) 702 boys have applied for admission, and the term will not open in two months. The standard of the college is high, and the age limit is 16 years.

The college is engaged in a variety of work, not only covering the domain of teaching, but work of a nature which is of benefit to the people at large. Its activities may be classified as follows: Instructing the youths of the State in many lines of knowledge; farmers' institute work; experimentation for the benefit of the farmers, adding knowledge to agriculture and allied subjects; inspection of fertilizers, to protect the farmers against fraud in this most important adjunct to successful farming; an inspection against the introduction of injurious insects within the borders of the State; a veterinary inspection, in order to prevent as far as possible the destruction of domestic animals by disease. All this work requires a large and intelligent force of workers, so that the interests involved may receive proper attention. In the instruction proper the college is divided into the following departments:

1. The Agricultural Department.—The subjects taught in this division are agriculture, or how to plow, cultivate and fertilize the land, what kinds of seeds to plant and how to plant them, and the cultivation of grasses for forage and for grazing, or how to make the best hay and produce the best pastures, how to manage labor and correctly handle the numerous implements required for successful farming; animal husbandry, or a study of the different types of animals, dealing with the principles of successful breeding and grading of cattle, horses, swine and sheep, in order to raise on the farm the animals best adapted for beef, milk and butter and draft animals best suited for an economical and satisfactory handling of the power on the farm; veterinary science, or how to treat domestic animals, and the value of using preventive measures against disease; botany and bacteriology, or learning how the wild plants grow, their habits and physiological peculiarities, and the studies of the problems underlying the cultivation of plants; what grasses to grow, and how the student may recognize the more common diseases which are ruining our fruit trees, vegetables and farm plants; entomology, or how to study the insects which are beneficial to man and those which are annoying and destructive to animals and plants, how to use preventive measures against pests by spraying and other means; horticulture, or how to grow fruits, flowers and vegetables and make the home and farm attractive and profitable in more ways than in simply cultivating the cereals and cotton, how the gardens are made subjects for instructive courses of study, and how the student is taught not only to produce delightful fruits of all kinds and vegetables of many varieties, but is also taught how to make the yard around the home full of beauty by the lovely hues and delightful perfumes of the flowers; geology and mineralogy, or how to intelligently know the rocks and minerals which make the soils of the fields and comprise the hills and valleys of the State, or a knowledge which will enable the stu-

dent to solve for himself the problems relating to the origin of soils, the position and extraction of important minerals and earths useful in commerce.

2. Department of Instruction in Mechanical, Electrical and Civil Engineering.—This portion of the college course is separated in the following divisions, which furnish to the student of engineering extensive and full instruction concerning the provisions which cover a broad field of human activity: Mechanical and electrical engineering, or how to erect and manage machines and manufacturing plants, the strength of materials entering into machinery, constructing of steam boilers, steam, gas and gasoline engines and pumps, construction, use and calibration of water meters, steam gauges, dynamometers, carimeters, the designing of dynamo electric machinery, the erecting and maintaining electric plants, the production of light and power, the principles and facts in physics, which are fundamental to the engineering profession and to the agricultural course are studied by all students in the college. Thorough courses are given in freehand and mechanical drawing, so that the eye and hand of the student are drilled to accuracy in delineation and expression. Ample provision has also been made in forge and foundry and in the workshop, so that the student is made familiar with the tools and machines and implements required in all detail work in manufacturing wood, iron and other metals, entering into all the necessary important machines required in human industries. In civil engineering a full course is prepared, so that upon graduation the student is able to build railways, construct depots, erect domes and necessary machinery for the confining and controlling of water-power, build country roads and conduct other engineering work looking to the upbuilding and permanent improvement of the country.

3. Department of Chemical Science.—In this department of the college an excellent equipment has been gathered by the board of trustees. Most efficient and extensive work in all lines of chemical studies is accomplished. The students are not only taught how to analyze organic and inorganic substances, but in this department also a great deal of work is done by experienced chemists in the analysis of fertilizers, soils and mineral waters, watching for the introduction of fraudulent articles into the State, and in bringing before the people the location of medicinal and healthful waters. In this department also the geological survey of the State has all of its analytical work performed; well-equipped laboratories are in operation, where the students of the college can enter upon and pursue to completion a course of chemical investigation which will render them experienced chemists.

4. Textile Industry.—Clemson College has the honor of being the first institution of learning in the South to establish a course of textile industry. The board of trustees have equipped at the institution a large, well-appointed building, well supplied with machinery, thus opening to the students all of the divisions of a complete cotton factory, so that upon graduation in this school these young men will be able to fill responsible positions in the manufactories of the State. Here they are taught to take the crude cotton as it comes from the gin and pass it through all of the various processes of treatment from cleaning, through carding, spinning and weaving into cloth. They are also taught to manufacture from chemicals all of the complex dyes required for the proper coloring of the cotton thread and cloth, so as to produce the beautiful fabrics which are made of cotton.

5. Academic Department.—This is a subdivision of the college well equipped with instructors and appliances for the proper teaching of the fundamental subjects of knowledge, such as English, history, political economy, etc., and the object of the college therefore is not to give courses of work simply along lines of industrial education, but also to give the young men who report here from year to year a sufficient amount of knowledge in subjects belonging to the academic department as to render them well educated young men when they enter upon the prosecution of their profession. We may therefore consider Clemson Agricultural College as a broad polytechnic institution, where young men are prepared in the most satisfactory way to battle with the problems of life which present themselves in the industrial pursuits of the people.

6. In connection with the college there is also a military department, presided over by a United States officer, graduate of the Military Academy of West Point, in which department all the students who report for study at this institution are required to enter. They are drilled in the school of the soldier, so that they become familiar with all of the evolutions and exercises leading toward developing the physical condition of the youth, and they are also taught the manual of arms and the duties pertaining to company and battalion formation. It is a point of considerable interest in connection with this department to note the fact that in the recent war with Spain the graduates of these agricultural and mechanical colleges throughout the country at once took prominent positions in the United States army as officers, and their record shows great efficiency in the service of the government. In accordance with the United States law, the three students who take the highest stand in the military department at Clemson College are printed in the Army Register at Washington, and under special conditions second lieutenants are appointed from the graduates of the college by the War Department without examination at West Point.

The college provides facilities for study in the following degree courses: 1. Agriculture and horticulture. 2. Agriculture and animal husbandry. 3. Metallurgy and geology. 4. Mechanical and electrical engineering. 5. Civil engineering. 6. Textile industry.

For the satisfactory accomplishment of this work the following well-equipped laboratories and workshops have been provided: Agricultural, horticultural, mineralogical, veterinary, entomological, dairying, botanical and bacteriological, electrical, mechanical, physical, textile, drawing, field work in civil engineering, forge and foundry shop, wood shop and machine shop.

Clemson Agricultural College is well provided with buildings and appliances, costing \$656,369. Eighteen handsome buildings, devoted to college recitations, laboratories and workshops. Forty-six residences furnish homes for the professors and other officers of the college.

John C. Calhoun's residence occupies a central position in the campus, and is the property of the college. This mansion is kept as near as possible in the condition in which Mr. Calhoun left it. A room in the building contains some interesting relics which belonged to Mr. Calhoun.

A large portion of the land on which the institution is located comprised Mr. Calhoun's plantation. The property was deeded to the State by Mr. Thomas G. Clemson, son-in-law of Mr. Calhoun.

The college is engaged by law upon some work that is of immediate value to the farmers, which in no way relates to the teaching of their sons. This work may be classified as follows:

1. The experiment station, established by a law of Congress in 1888, the purpose of which is to conduct experiments along original lines, to add to the advancement of knowledge and to give to the farmers in the most satisfactory manner information to enable them to cultivate the land and to improve the condition of agriculture, so that the best possible results may be secured to the farmer in his profession.

The law requires that this station shall be equipped with efficient men, who are able to experiment upon all questions relating to the agricultural profession.

Sufficient amount of money is paid into the college directly from the United States treasury to go largely towards paying the experimenters' salaries and equipping laboratories with apparatus and facilities for original research. There is a bill pending now before the present Congress to materially increase the income of the station.

2. The State law requires a careful and systematic inspection of all the fertilizers placed on sale within the borders of the State, so as to prevent fraudulent transaction. The chemist of the college is required to make analyses of these fertilizers, in order to determine if the manufacturers are coming up to the guarantee which they make and which must reach the requirements of the law.

Inspectors are sent out over the State under the control of the board of trustees, whose duties are to thoroughly inspect every ton of fertilizer placed on the market for sale, and to transmit to the chemist of the college properly collected samples for analysis.

There is a board appointed by the board of trustees having in charge this interest, and at the college there is located an office, presided over by a secretary, whose duties are to keep the machinery of this inspection in operation.

3. The chemist of the college is required also to analyze all the minerals, mineral waters, soils, etc., collected by the State geologist, and this work is all done without additional cost to the State. He is also required to analyze samples of the products of the farm and other materials of interest to the farmer, without cost. For this purpose there is a force of chemists at work at the college throughout the year, and a very large amount of work of great utility to the people is thereby accomplished.

4. The entomologist of the station is also the State entomologist, and by law he is required to visit all sections of South Carolina to inspect the nurseries and to see to it that no diseased plants or injurious insects are introduced within the borders of the State. There is also a board of entomological inspection appointed by the board of trustees of the college, having full charge and direction of this interest. In the matter of protecting the people of the State against diseases and insects, there can scarcely be an estimate made, because the value must be great when we consider the study of the cultivation and growth of plants throughout the State.

5. There is a board of veterinary inspection appointed by the board of trustees under the law of the State, and two veterinarians are engaged part of their time in visiting different sections of the State where diseases of cattle are known to exist for the purpose of eradicating this trouble, and thus protect this most important industry of cattle-raising for beef and dairy purposes. Much of value has accrued to the State during the past few years by the existence of this inspection, in the application of remedies and the stamping out of such diseases as glanders, tuberculosis, Texas fever and other like

serious diseases among the stock and cattle.

6. The farmers' institute work was entered upon by the college several years since, and this work has grown into important proportions, so that at the present time there is considerable tax to the energies of the experimenters and to the facilities at the command of the institution for carrying on this important undertaking for the benefit of the farmers.

During the summer of 1903 there were held over the State and at the college institutes remarkable for the fact of the unanimity with which the farmers called for this work in all parts of the State, the large gatherings which developed at each point, and the general interest shown by the people in all the work of the institutes.

The one held at the college in August was of special importance, for the reason that it was the winding up of the summer work, and because so many distinguished men, well informed in all lines of agricultural studies, were gathered here for the purpose of instructing and being instructed. Another interesting feature in regard to this gathering was due to the fact that so many farmers assembled and spent the days in earnest work, endeavoring to improve their knowledge of farming operations, and thus better prepare themselves for the serious work of life. The college authorities provided board and quarters for something over 1500 people. All the facilities of the college and station were put to the utmost tax in meeting the demands of this most unusual gathering of people. It was a source of much interest to me to note the large amount of valuable work accomplished by the farmers and lecturers during their stay at the institute. Their meeting was also of special advantage to the college in giving the people an opportunity to see the work of the institution, to note the extensive plant and to become familiar with the fact that the board of trustees had faithfully carried out the requirements of the law in establishing the college, and that so much had been accomplished of great utility, not only to the students who assemble from year to year for instruction, but to the farmer himself, reaching out in many ways to relieve the burden that is placed upon the agriculturist, and to assist him in solving the problems daily coming to his hand.

There seems to be an indication that these farmers' institutes will gradually increase in importance and in the number of attendants year by year, and it is now becoming a serious question with the authorities to know just what to do to meet the demands of the people who are reaching out for information, and thus taxing the institution to its fullest capacity.

In accordance with the law of the State, the board of trustees of Clemson College have been engaged for the past two years in conducting a series of experiments in the coast section of the State. In this region of South Carolina considerable interest has been manifested in the growth of grasses, with gratifying results. The intention of the board under the law is to assist the farmers in their efforts to grow forage plants, so that this industry may be given the impetus it needs, and thus be an incentive to the people to raise a fine breed of stock for beef and dairy. There has also been considerable trouble to the farmers in the rice and Sea Island regions of the State, resulting in damage to the plants, by insects and diseases which have been quite destructive. The college has entered upon the prosecution of the work for the purpose of alleviating this trouble as far as possible, and careful experiments are being made by the experimenters of the station for the purpose of obtaining remedies against these

pests. There is every reason to believe that the work carried on in this systematic way in the hands of the experimenters will result not only in great benefit to the farmers along the Sea Islands, but much value will accrue to the entire State. It must be clearly borne in mind that in work of this character the board of trustees are called upon to take out quite a sum from the funds given to the college by the State for teaching purposes, in order that these interests along the coast may be properly taken care of. No part of the money coming from the Congress of the United States, appropriated for the experiment station, can be used in this direction, but in order to sustain the coast station we must draw from the funds of the college.

Besides the regular courses of instruction given to the students by the professors of Clemson College employed by the board of trustees for the purpose, the board has also established a series of lectures and other entertainments which may properly be called a lyceum course.

Clemson Agricultural College is situated in the northwest corner of South Carolina, on the Southern Railway, among the foothills of the Blue Ridge mountains. From any portion of the campus beautiful views are had of the range of mountains as they tower into the sky a few miles away. The climate is invigorating and healthful, and nature has done everything to make the surrounding country attractive and beautiful. It is therefore a great advantage to anyone to live in such surroundings, because if the student has within him any inclination to appreciate the beauties of nature, he has every incentive here for the cultivation of such a faculty, and therefore with these surroundings, with what nature has done, and the effort put forth by the authorities in the way of landscape gardening, the student is encouraged to learn these important principles, so that when he begins to erect his home he will know what it means to have around all these features which please one's artistic nature.

Clemson Agricultural College is located in one of the most interesting sections of the country when considered from the standpoint of history. In the immediate neighborhood of the college there are a number of interesting places made memorable in the colonial and Revolutionary history of the country, and it may therefore be interesting to mention some of them.

In 1730 Sir Alexander Cumming held a treaty with the Cherokee Indians near the Keowee village, in old Pendleton district. The purpose of this treaty was to secure from the Indians an extensive tract of land, and in this he was successful.

In 1755, after the completion of this treaty, James Glenn, the colonial governor of Canada, built on the Keowee river, opposite to this Indian village, a fort, which was named Prince George. The location of this fort can be pointed out to this day, the remains being on the land of Capt. R. E. Steele, who is an old Confederate soldier. It is a landmark showing the struggle between the settlers in colonial times and the aborigines in the effort of our forefathers to establish this great American nation.

On the Seneca river, within three-quarters of a mile from the main building, and on the college property, there is another fort, called Fort Rutledge, built by Williamson during the Revolutionary War, in the summer of 1776.

On the opposite bank of the river was located the Indian village of Seneca, over which the guns of the fort commanded authority. Captain Salvator was killed near this fort in a battle with the Indians and Tories.

When John C. Calhoun purchased the

land surrounding these old fortifications he called his place Fort Hill, in honor of this old Fort Rutledge. The remains of the foundation walls are still intact, and an old well used by the occupants of the fortification can readily be located, although it has been filled up for many years.

There is another interesting place within a short distance of the college property. Within two or three miles was the home of Gen. Andrew Pickens, called Hopewell. This interesting old place is situated near Cherry's Crossing, on the Blue Ridge Railroad, and is of easy access from the college. The region around General Pickens' home was the scene of several treaties with the Indians, and there stands today nearby a large oak tree, known throughout the section as Pickens' Oak, or Treaty Oak, the tradition being that under this tree General Pickens consummated one of his most important treaties with the Indians.

Within three miles of the college, in another direction, there is another interesting relic, known as Hopewell Church, or the Old Stone Church. This building was erected in 1797. In the churchyard connected with this church lie the remains of General Pickens and his wife, Rebecca Calhoun, aunt of John C. Calhoun. Other distinguished men were buried in this churchyard, and around it clusters a number of romantic stories descriptive of these stirring times in the history of this nation.

In fact, Old Pendleton district, out of which came the counties of Oconee, Anderson and others, is full of historical pulsations, and many stirring events transpired within its borders during the struggle of our forefathers in hewing out their homes in the native forests and repelling the invader during the Revolutionary history of the country.

In the town of Pendleton, four miles away, is an old courthouse erected in the first part of the last century, made memorable by the speeches of such distinguished lawyers as John C. Calhoun, W. R. Davis, member of Congress, and a friend of David Crockett, and Governor B. F. Perry. In this old building the Farmers' Society was organized, the second oldest agricultural society in the United States. Many of the members made history in South Carolina, and their names are familiar to all persons who have studied the history of their country. Mr. Calhoun was a member of this society.

Clemson Agricultural College is accomplishing valuable work for the people of South Carolina. It is only necessary for a citizen to visit the college to be impressed with the activity manifested on the part of the teachers, students and officers engaged in special lines of work. And he will be astonished at the wonderful growth in 10 years shown in the many large imposing buildings and the extensive appliances in apparatus and machinery and other facilities placed here by the board of trustees for the instruction of the people. No college in the South offers an education more liberal in the sciences than that given by Clemson College, and where the expenses of the student are so small. This college, therefore, is peculiarly fitted for the poor boy as well as the boy whose father is able to stand a greater outlay of money. Although the living is cheap, the education is broad. South Carolina should therefore be proud of her splendid Clemson Agricultural College, and all the people should give her their liberal support, sympathy and commendation.

During June the mill at Bond, Allegany county, Maryland, sawed 11,037,397 feet of lumber in 25 days.

INDIVIDUAL EXHIBITS AT ST. LOUIS.

[Special Correspondence Manufacturers' Record.]

St. Louis, Mo., July 22.

No feature of the displays in the Palace of Agriculture at the World's Fair is more daintily attractive than the large central space occupied by the exhibits of the American Cotton Oil Co. and its subsidiary company, the N. K. Fairbank Co. In keeping with the commercial importance of the great and constantly-increasing cotton-oil industry, these exhibits are prominently located near the huge cotton dome, with its mammoth statue of King Cotton, seated on his regal throne, and they serve to fill out the picture of great impressiveness which it was intended that the American cotton industry should present. All the decorations of the displays are in white, counters, chairs, desk and every article of furniture or woodwork, while the ornamental columns are of gold, and the signs are of gold on a background of olive green. There are displays of all the various oils the company makes in ornamental bottles of glass, ranged in rows on the pyramidal counters, and at their base are barrel ends in relief, with facsimiles of all the brands of oils which constitute the output of the various factories which the American Cotton Oil Co. controls. These include the various American and Union brands of summer and winter oils, both white and yellow, which the company produces, the same as are displayed in the glass receptacles on the counters, and which are recognized as the standard of excellence the world over.

Around the base there are growing cotton plants, now in bloom, the only exhibit of the kind to be found on the grounds. The American Cotton Oil Co. made a special arrangement with a St. Louis florist to furnish these plants throughout the season, and they are grown from seed planted here. By the arrangement made there will be from 25 to 50 fresh plants furnished each week during the fair, so that every interesting stage of the plant's growth and development will be shown, clear up to the time the ripened boll opens with its fleecy fruit. To the Southerner this will be greeted as a familiar sight, while it will bear the charm of novelty to thousands of visitors who have never been in Dixieland, or who have seen the South only in the winter months.

Literature handed out at the booth of the American Cotton Oil Co. contains some information unfamiliar even to those who have known the growing cotton fields all their lives. About everybody knows that cotton is indigenous to America, and it is easy to conceive that cotton has been growing in this country from time immemorial. But not everyone has reflected that Columbus must have found cotton in use by the savages when he first landed on the shores of this new world, nor is it generally remembered that Cortez mentions it as being rudely manufactured into cloths by the Mexican Indians. It is recorded that cotton was found growing wild in Texas and the lower Mississippi valley as early as 1536, and that the Virginia colonists started in to cultivate it as long ago as 1621. What a tremendous impetus was given to the industry of cotton-growing by the invention of the Whitney gin something more than 100 years ago everyone familiar with industrial affairs can tell, for from the date of that invention the whole subject assumed a different phase, and even the institution of African slavery was deeply affected thereby. But for more than 240 years after cotton was first cultivated by white men in America no one saw any value in the seed except as a fertilizer, and it was not until a short time before the war of 1861-65 that any development

of the cottonseed-oil industry was undertaken to any commercial extent. When the war closed in 1865 there were less than a score of cottonseed-oil mills in the country, and they, operating by somewhat crude and primitive methods, were crushing only about 50,000 tons of seed a year. Since that time, and particularly within the past 15 years, the growth of the knowledge of the value of cottonseed products as a clean and wholesome food for man and beast, and for manifold uses in the arts and sciences and in agriculture, has been so rapid that today there are something like 700 mills for crushing cottonseed in the United States, with an annual output of \$125,000,000, crushing over 2,500,000 tons of seed annually and giving employment, directly and indirectly, to at least 50,000 people.

A leader in the industry is the American Cotton Oil Co., whose general offices are at 27 Beaver street, New York city. The mills and refineries of the American Cotton Oil Co., at which are manufactured cottonseed oils and stearines, cake, meal and other products, are located in 17 different States of the Union. The company exports its products to the value of \$10,000,000 annually, the goods going not only to Europe and the British Isles, but to Asia, Africa and Australia as well, with a good and growing trade in Central and South America, from Mexico to Cape Horn. The American Cotton Oil Co.'s products may be found in the kitchen and on the tables of the people of every civilized country in the world. As a food it is recognized as a worthy rival of the olive of Spain, France and Italy, of the sesame and arachide of Asia and Africa and of the colza or rapeseed of France and Germany. It is burning in altar lamps of Catholic and Greek churches throughout Europe, Asia and both Americas, and is lighting armies of miners as they delve and burrow in the secret places of the earth.

Cottonseed meal is enriching the food of dairy cattle all over the world, more than 200,000 tons being exported for this and kindred uses. A far larger quantity goes back to the fields every year as a fertilizer, its richness in nitrates giving it special value as a plant food. As a special aid to tobacco-raisers it is unequalled for producing the color, quality and texture of the leaf that is in most demand by buyers and handlers of the weed.

Large as is the foreign consumption of these goods, however, the greatest market is at home, where more than half the entire product of all the mills is consumed. Here the purity and wholesomeness of the oils and the usefulness and value of the various other cottonseed products are making new friends and wider markets year by year.

It is the province of the N. K. Fairbank Co.'s exhibit to give a practical demonstration of the excellence and wholesomeness of the American Cotton Oil Co.'s products, including the well-known and widely-advertised Cottolene, as well as the various cooking and salad oils which the company makes. This exhibit, fitted up in harmony with the snowy whiteness of the American Cotton Oil Co.'s booth, contains a model kitchen, presided over by a young colored woman who is an artist in the handling of Cottolene and cottonseed oils, and here all day she presides over the range and oven, turning out cakes, doughnuts, Saratoga chips and other delicacies which have been cooked to a crisp turn in Cottolene and oil. These are handed out to all visitors who may desire to discover just how delicate a flavor it is possible to impart to pastry by the use of cottonseed-

oil products. Information and suggestions are given as to the methods to pursue to get satisfactory results, and the assurance is given by the company's representative, Mr. John F. Baker, of the home office, New York, that properly used cottonseed-oil products are more palatable, healthful and digestible than animal fats, while at the same time being very much more economical than lard or cooking butter, so that their continued and increasing use is predicted as certain to occur.

Wide Use of Sand-Lime Brick.

Not only is the \$20,000 exhibit of the H. Huennekes Company, whose main offices are at 114-118 Liberty street, New York, an exceedingly attractive one because of its arrangement and size, but it is one of the drawing cards of the Mines and Metallurgy Building on account of the rapidly-growing interest which is being taken in the manufacture of sand-lime brick by the Huennekes system. A miniature factory in operation adds much to the attractiveness of the display, but so impressive is the arrangement of panels, bricks and blocks that it would be a drawing card if merely a dead exhibit. The entrance to the Huennekes system space, as well as to the entire clay industry exhibit, is through a massive arch executed in bricks and blocks made out of sand and lime at the factory at Atlantic City, N. J., and the entire space, covering over 2500 square feet, is surrounded by walls made of the same material. The factory occupies the center of the space, and is in every way an accurate and perfect model in miniature of the factories which the company is erecting throughout the United States. It is executed in a quarter to the foot scale, and every part of the machinery and connections, as well as the transmission, is as carefully executed as in a full-sized machine. In operation this factory turns out miniature bricks, which are given away and are in much demand as souvenirs. The factory is surrounded by panels containing the exhibits of over 20 companies which have factories in operation throughout the United States.

The growth of the Huennekes system in this country is hardly short of phenomenal. At the present time a factory is being erected at Asheville, N. C., for the French Broad Granite Brick Co., and there is just going into operation at Memphis for the Tennessee Granite Brick Co., a factory which was constructed within the past few months. Within a few weeks a factory for the Arkansas Granite Brick Co. has been set in operation at Fort Smith, and another factory, owned by the same company, is in operation at Little Rock. Another important factory, started about a month ago at Clinton, Iowa, by the Iowa Granite Brick Co., is accomplishing unexpectedly fine results with Mississippi river sand. Samples shown at the display here reveal a variety of very attractive shades, and the hardness of the brick and the low absorption, together with the excellent color, combine to make a most satisfactory product. This factory has a capacity of 40,000 bricks per day of 10 hours. There are two handling cylinders, and the combination press which has been installed will make all shapes desired.

Altogether there are no less than 34 companies or individuals in the United States engaged in the exploitation of the Huennekes system building materials. The combined output of the factories a year ago did not amount to 15,000,000 bricks a year, while today the output of all the factories in operation or about completed amounts to more than ten times that number, or 150,000,000 bricks per annum. This is surely remarkable testimony to the progress which is being made in the sand-lime brick industry in this

country, and no less so to the value of the Huennekes system and machines and the services which the company is enabled to render the public in the erection and operation of sand-lime brick factories.

Oil and Artesian Drillers.

The Keystone Driller Co. of Beaver Falls, Pa., has combined with the Downie Pump Co. of Downieville, Pa., in the installation of a representative number of oil rigs, artesian well and placer testing machinery and deep-well pumps in the Mining Gulch, on Constitution avenue and Federal road. The Keystone Driller Co. was the first in the field to put its machinery in operation, it having installed its own plant for making steam, which it uses for running its machinery for the purpose of showing it in operation. An artesian well is being drilled with a 500-foot machine inside the building, where it is expected they will get pure drinking water for the use of anyone who pays them a visit, and also for their own convenience. The well is now down 160 feet. The formations passed through have been sand and clay, 15 feet; shale, 26 feet, and St. Louis limestone, 119 feet. An average of 30 inches an hour is being made in drilling a six-inch hole through this hard limestone. Samples of all the drillings are being kept, and will be on exhibition. A large 2500-foot rig for drilling for oil and gas is also in operation, together with a number of appliances used in that class of work. A large traction drilling machine, for going to a depth of 1000 feet, is kept on a roadway, and with it the methods of moving machines of this kind from one location to another will be shown. The exhibit also includes a machine for placer testing, drilling shallow artesian wells and for drilling blast holes for railroad cuts ahead of steam shovels.

The Downie Company shows a full line of deep-well pumps, and all of them are to be in operation. The classes are direct double-acting steam, direct single-acting steam, direct double-acting geared and direct single-acting geared. There is also a quadruple or four-plunger pump. The double-acting geared class operate two plungers in the same working barrel in reverse directions, and by so doing they more than double the capacity of a single-acting pump. They can be run at a higher speed, and do not have to start the column of water, thus keeping the water column in a constant upward motion and saving the inertia of the water. The rods are balanced in weight, and thus weigh nothing to the power applied. The large port area or waterways in the Downie patent conical valves pass the water through nearly on a straight line, which makes the double-acting pump one that can be operated without undue friction. The double-acting steam direct pumps are driven by steam pressure direct from the boiler, and the double-acting geared pumps are driven by belt from a steam, gas or gasoline engine or a line shaft, or they can be geared direct or belted to an electric motor. The Downie Pump Co. covers the field in all sizes and capacities of pumps for deep wells.

Chain Blocks.

The Yale & Towne Manufacturing Co., with general offices at 9, 11 and 13 Murray street, New York, has a chain-block exhibit in Machinery Hall at the World's Fair, in which it is evident no pains have been spared to make a display interesting alike to the casual visitor as well as to the engineering student, and naturally it is attracting a large degree of attention. There are shown blocks of all three types made by the company, ranging from one-eighth to 20 tons capacity, but easily the most interesting part of the exhibit consists of the moving hoists. The company's new electric hoist, an illustration of which

is presented herewith, is being introduced at the exposition. It is shown in operation, and has proved of particular interest to the many engineers of prominence who have examined its work. The company has been testing a number of these hoists for some time under the severest conditions of usage in several of the largest

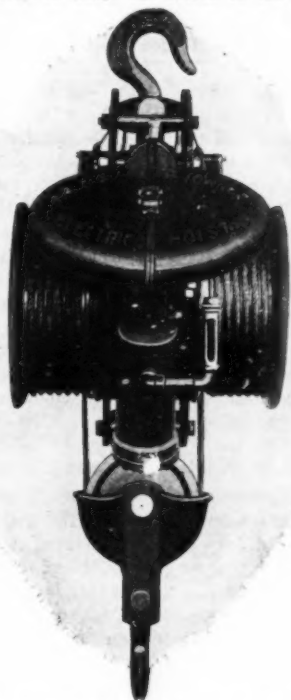


FIG. 1—YALE & TOWNE ELECTRIC HOIST

plants, and the results are exceedingly gratifying. It is declared that this electric hoist will fill a long-felt need for a simple and efficient power hoist that is light enough to carry around in general work, and that will yet stand the most trying usage in the hands of the inexperienced workman. In addition to the elec-

quicker than any other, while at the same time the ammeters show equal power applied to each block. The mechanism is automatic, so that when the triplex weight arrives at the top all three blocks reverse their motion and lower their weights until all reach the floor, when they again automatically reverse and begin to hoist. This arrangement shows at a glance the comparative efficiencies of the three blocks, and is of particular interest to any engineer.

Yale & Towne triplex blocks have made a record for themselves by installing many of the heaviest machines at the exposition at a minimum of cost and labor.

Standard Scales.

In addition to the very complete and interesting display of gas and gasoline engines made by Fairbanks, Morse & Co. of Chicago, mention of which has heretofore been made in these columns, this company has a most comprehensive display of all kinds of standard scales in the Palace of Machinery, and there are also exhibits by the same house in four other places on the ground, the entire five exhibits covering a space of about 15,000 square feet. In space 34, Machinery Hall, are grouped the hundred modifications of Fairbanks standard scales. The wide range of uses to which the scales of this house are adapted is demonstrated by the fact that in the group are scales of such marvelous delicacy that they will record the weight of one-tenth-thousandth of a pound, while alongside are scales with a capacity of 300,000 pounds. The list includes physicians' scales, grain scales, cement testers, fancy agate bearing scales, all manner of grocers' counter scales, portables on wheels, suspension copper and hopper scales, steel construction, railroad depot pattern, with dial freight-weighting attachment, railroad track scales, steel construction, with dead rails and printing beam. These are the scales

field railroad standpipes for railroad water stations, track jacks, gasoline motor, velocipede, hand and bicycle cars, rail benders, etc.

In space 257, Transportation Building, the main exhibit of railroad goods is to be found. This display is a complete exhibit of the various railroad goods made by Fairbanks, Morse & Co., including hand and push cars, gasoline motor, velocipedes, bicycle cars, mine cars, combined gasoline pumps, combined gasoline engines with pumps, vertical gasoline engines, steam pumps and standpipes for railroad water stations, track jacks, etc.

In the Palace of Agriculture, space 27, is a display consisting chiefly of windmills of both wood and steel construction. A wood mill 5 feet in diameter is used for irrigation purposes, and also by railroads for supplying water to water stations. In the windmill field, near the Agricultural Building, there are Fairbanks steel windmills with steel towers, Eclipse wood mills on steel towers, and a 20-foot Eclipse pumping mill on a 60-foot wood tower, connected to a double-acting pump, circulating water to a tank.

Immense Traveling Cranes.

Pawling & Harnischfeger, Milwaukee, who make traveling cranes, wall and jib cranes, extension type cranes and all sorts of traveling and hoisting devices, have a number of interesting exhibits, including two immense traveling cranes, one of which is in service in the Electricity Building and the other being one of the three in service in Machinery Hall. The one in the Machinery Hall is the larger, being of 60 tons capacity, with main hoist of 50 tons capacity and auxiliary hoist of 25 tons capacity, while the one in the Electricity Building is of 35 tons capacity, with main hoist of 30 tons and auxiliary hoist of five tons capacity. Both cranes are of the same type, being standard four-motor cranes, with both hoists mounted on the same carriage. They are equipped with standard electric mechanical brakes, each capable of holding the load itself, and they have an electric limit switch, which automatically cuts off the current when the hooks have reached a given height, thus preventing the possibility of the operator hoisting too high and breaking down. The main hook travels at the rate of 30 feet per minute with light load and 12 feet with full. The auxiliary hook travels at the rate of 90 feet a minute with light load and 30 with full. The span is 60 feet, and the bridge travels at the rate of 500 feet per minute with light load and 400 with full load. The cross-travel in each case is at the rate of 100 feet a minute with full load. This crane is one of the showpieces of the Electrical Building, in service, and has been from the first, and has been used in handling or installing all the machinery in the Electrical Building. Now that this work is complete, it is proposed to have an operator in charge, who will run the machine every hour for the benefit of the public.

The Machinery Hall crane has an 80-foot span and weighs 150,000 pounds. The bridge travels at the rate of 400 feet per minute light and 300 full. The main hoist travels at the rate of 25 feet per minute light and 12 feet full, and the auxiliary 50 feet light and 20 feet full.

In the exhibit in the Electricity Building there are two other machines for hoisting purposes. One is a one-ton single-truck electric hoist, designed and built very compactly, to travel on the lower flanges of an I-beam runway. The special machine on exhibition is designed for foundry service, having a substantial outrigger operating device, which permits of the operator standing to one side of a load of hot casting. Incorporated in this

machine are all the chief features of the standard traveling cranes, including the two brakes, limit switch, etc., that overhead traveling cranes contain. These machines are built up to one and one-half tons capacity.

The other exhibit here is a three-ton design of double-truck hoist, mounted on swivel trucks, which permit of operating equally well on straight or curved tracks. This hoist has an attached operator's cage, from which point all motions and speeds are controlled. It also contains all the chief features of the other cranes. With electrical and mechanical brakes the operator is enabled to control the speed of the machine absolutely, it being so designed that it is necessary to apply power for lowering the load as well as hoisting it. These machines are built of capacity from one to six tons.

Electric Metal Planer.

An elaborate exhibit by the Electric Controller & Supply Co. of Cleveland, Ohio, in the Palace of Electricity contains a number of interesting electrical machines and devices, conspicuous among which is a metal planer, which in principle constitutes a radical departure from any metal planer heretofore designed. It has a direct-connected motor, and it reverses at the end of each stroke. A speed is obtained of from 14 to 80 feet a minute on the cut, which puts the planer in position to take advantage of improved tools, which it is declared the belted planer never has been. From 150 to 200 per cent. more work can be got with this machine than is possible with the belt-driven planer, according to the claims of the designers. The machine on exhibition is a 36-inch planer, and in operation it is taking cuts in medium hard cast iron of 15x3-32 inch by 52 feet in a minute. No change in the principle of operation is involved, so that it requires no more attention than a belted planer.

A rapid reversing controller is another feature of the exhibit. Its principal use up to this time has been in operating tables in steel mills, particularly the main mill table. It is applicable, however, wherever rapid and frequent reversal of motor under load is required. Other applications are for all kinds of hoisting and elevator work. There is also in the display a full line of dinky controllers, with which the company's name has been known for some time, and which are now in use in steel mills all over the world. A novelty is a new form of controller, known as "type C," just got out, in which the starting resistance is formed of iron grid, direct connected to the fingers of the controller. This makes the controller very easy of operation, of absolutely fireproof construction, and requiring a very small cost for installation.

A showpiece of the exhibit is a large lifting magnet, capable of lifting three tons. The company makes a large line of these lifting magnets of all kinds. Magnetic stop and magnetic friction brakes are shown, the magnetic friction brake being of 15 horse-power capacity and the magnetic stop brake 150 horse-power. There is also a full line of solenoids for the operation principally of band brakes.

The company makes a complete line of crane fittings, for wiring up electric cranes and also for general mill work, and there is a good example of those types also in the display.

Note.

In this correspondence in its issue of June 23 the Manufacturers' Record stated that the exhibit of the Pike Manufacturing Co. of Pike, N. H., was in the Manufacturers' Building. That was a mistake. The exhibit is in the Palace of Mines and Metallurgy.

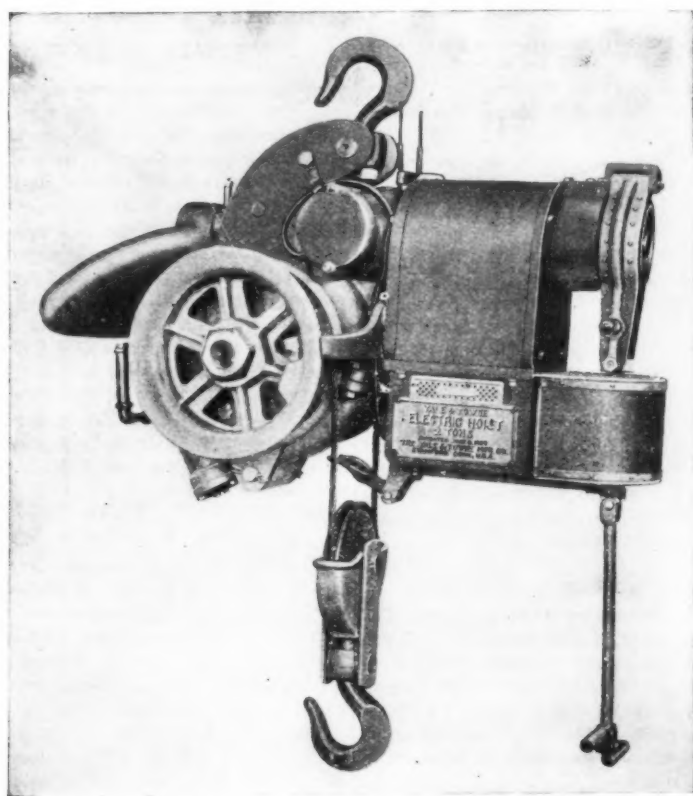


FIG. 2—YALE & TOWNE ELECTRIC HOIST.

trict hoist, there are one each of the company's triplex, duplex and differential blocks, operated by electric motors, for the purpose of showing the relative efficiencies. Each block is supplied with a 1000-pound weight, so arranged that equal power is applied to each. The result is that the triplex block lifts its load much

with a capacity of 300,000 pounds, and the printing-beam attachment enables the weigher to instantaneously furnish a record slip showing the tare, gross and net weight of any car.

Most of the company's railroad goods are in the Transportation Building, although there are in Machinery Hall Sheffield

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

WOODWARD TO EL PASO.

Oklahoma, Texas & New Mexico Railroad Incorporated to Build a Long Line.

The Oklahoma, Texas & New Mexico Railroad Co. is reported incorporated at Dalhart, Texas, with authorized capital of \$10,000,000, to build a line from Woodward, O. T., via Dalhart, Texas, to El Paso, Texas, about 540 miles. From Woodward, where it will connect with the Frisco system, the road will run through Las Vegas, N. M., and thence to Dalhart and El Paso. It is stated that it will furnish a line of easy grades, which will be of advantage to both the Frisco and the Santa Fe. At El Paso connection will be made with the Southern Pacific & Mexican Central Railway.

The headquarters of the company will be at Dalhart, where the line will connect with the Fort Worth & Denver City Railway, the Colorado Southern and the Chicago, Rock Island & Gulf. A new union station is to be erected. Financial arrangements for construction will now be made.

It is furthermore stated that the road will reach valuable mineral property in the San Andreas mountains, where gold, silver, copper and lead are found. The Dalhart Mining Co. is operating in Good Fortune canon.

At a meeting presided over by W. B. Slaughter, the following officers were elected: President, J. H. Conlen; vice-president, L. P. Raymond; general counsel, D. B. Hill; secretary, R. T. Pugh; treasurer, C. H. Young; general manager, W. C. Edwards; superintendent transportation, M. S. Connors; general superintendent, R. L. Brown; chief engineer, F. J. Ward; roadmaster, east division, W. J. Lacy; roadmaster, west division, W. L. Finn; master mechanic, Thomas C. Sunderland; general car foreman, E. L. Cress; general freight and passenger agent, J. E. Steel; general baggage agent, Newton Childers; superintendent telegraph, D. C. Diltz, all of Dalhart, Texas.

The stockholders are W. B. Slaughter, E. L. Brewer, W. G. Howell, J. M. Mays, R. T. Wood, M. A. Thomas, Robert Stolcup, R. L. Neal, C. F. Carter, W. B. Chauncey, W. T. Allen, W. J. Clarke, Joe Murphy, J. B. Dixon, T. S. Mills, O. E. Haynes, T. M. Wiggins, W. W. Duckworth, Fred Jessir, Dell W. Herrington, E. C. Hyde, Frank Record, J. A. Madrall, W. W. Martin, John Webb, W. C. Whims, Gus Jocks, H. C. Coleman, J. W. Mormon, Robert Troupe, C. K. Tatum, R. P. Hutton, R. Tatum, C. D. Stepp, John Brown, C. H. Bowers, A. J. Rowlen, W. H. Saylor, Dr. W. S. Neal, Dr. J. A. Hedrick, S. J. Jackson, Judge J. P. Inman, Sam Killen, W. D. Wagoner, W. L. Foxworth, F. B. Farthing, G. C. Pittman, Dee Milo, Ike Mansker, Robert Dilworth, Jack Ryan, J. F. Cain, Ed Feagan, A. Stevins, Thomas Swearingen, Ernest Morris, C. M. Kella, J. B. Reed, G. R. McGee, all of Dalhart.

AN ELECTRIC RAILROAD.

Fort Adams, Woodville & Centerville Line in Southern Mississippi.

Dr. Will H. Woods writes from Woodville, Miss., to the Manufacturers' Record concerning the proposed Fort Adams, Woodville & Centerville Electric Railroad. He says:

"Our proposed line from Fort Adams, on the Mississippi river, where we will connect with the Red River Valley Railroad and the Texas & Pacific Railway, to

Centerville, Miss., on the Mississippi Valley Railroad, is 34 miles long. This cross-country line will also tap a branch line of the Valley system at Woodville.

"This is a very rich section of rolling country, and affords valuable inducements to homeseekers, but there is difficulty of getting products to market. This county ships nearly 30,000 bales of cotton a year and brings in freights to make this crop and to support a population of nearly 200,000, of which 60 per cent. can be controlled by our electric road. The population along this line will aggregate 150,000, and the road will cut short the circuit of traveling salesmen in Southern Mississippi. It will connect the Illinois Central Railroad with the Valley and the Mississippi river at Fort Adams, and also those eastern points with the Red River Valley and the Texas & Pacific." Furthermore, it will reach the transportation facilities on the river.

It is also stated that the charter for the line will soon be completed and filed with the governor, after which the company will be organized and preliminary work begun. Those interested are L. T. Ventress, Chas. Cohen, Jas. M. Sessions, W. L. Ferguson, A. M. Shepherd, C. M. Stricker, M. P. Scott, R. M. McGehee and Dr. W. H. Woods. Mr. Ventress has been elected chairman, and Dr. Woods, secretary. The promoters are in communication with capitalists and contractors.

RAILROAD WANTS CANAL.

Western Maryland Offers to Buy State of Maryland's Interest.

Mr. F. S. Landstreet, vice-president of the Western Maryland Railroad (Wabash system), has written to Governor Edwin Warfield of Maryland offering to purchase the interest of the State in the Chesapeake & Ohio canal, along the line of which the company is now building its extension from Cherry Run to Cumberland to connect with the West Virginia Central Railway, also in the Wabash system. The governor will submit the proposition to the board of public works, which is composed of Comptroller Gordon T. Atkinson and Treasurer Murray Vandiver, besides the governor, at a meeting to be held on Thursday, August 4.

The canal property is now in the hands of trustees for holders of bonds issued in 1844, and these trustees are Hugh L. Bond, Jr., second vice-president of the Baltimore & Ohio Railroad, and Joseph Bryan of Richmond, Va. This trusteeship continues until January 1, 1906, nearly a year and a-half from the present time. The late John K. Cowen, general counsel of the Baltimore & Ohio, was also one of the trustees.

Should this move on the part of the Western Maryland finally result in the acquirement of a controlling interest in the canal property, the Wabash would be put in possession of almost a ready-made grade to build its own railroad from Cherry Run to Washington, D. C., towards which city the system has long been reported as aiming, as well as for a tidewater outlet at Baltimore. The canal terminates at Georgetown, D. C., which is now practically part of Washington city, and it could be used to give the company an outlet at tide on the Potomac river.

For a New Line in Louisiana.

Mr. H. D. Apgar, secretary of the Monroe Progressive League of Monroe, La., writes the Manufacturers' Record as follows:

"As yet there has been no definite plans made or name given the proposed railroad to Lake Providence through the parishes of East and West Carroll and Morehouse to Bastrop, then south to the point on

Island De Saird to connect with Little Rock & Monroe Railroad.

"There has been one meeting held in Bastrop and one in Lake Providence in the last two weeks regarding this matter.

"We have succeeded in interesting some Northern capitalists in the enterprise, and a meeting will be held in Monroe in the next 10 days or two weeks, when all interested parties will come together and something definite will be decided upon.

"The territory which this line will traverse is farming land and timber (large amount of yellow pine and hardwoods), a very rich country for agricultural pursuits.

"The desire of the people projecting the railroad is to open up an undeveloped section of North Louisiana, and at the same time give us another route to the Mississippi river."

Arkansas Anthracite Railway.

The incorporation of the Arkansas Anthracite Railway Co. of Fort Smith, Ark., is reported; capital \$1,200,000. The plan is to build a line from Fort Smith through Sebastian, Crawford, Franklin and Johnson counties, with a spur to the headwaters of the Little Spadra; total length of line, 66 miles. The directors are W. J. Echols, C. E. Speer, E. B. Miller, James F. Read, Charles E. Stoaks and W. H. Robins of Fort Smith, and W. H. H. Shibley of Van Buren, Ark.

It is stated that 25 miles of grade built about 30 years ago by Mrs. Hetty Green for a railroad from Clarksville to Fort Smith will be used by the new company, which, it is said has purchased all rights of way. The route is from Fort Smith, crossing the river at Moores Rock via Van Buren and Alma to Clarksville. It will pass Mulberry about two and one-half miles north and about five miles north of Ozark. It is expected that the work will begin very soon.

MUSKOGEE UNION LINE.

C. N. Haskell Reported to Have Sold Out to William Kenefick.

Dispatches from Muskogee, I. T., state that C. N. Haskell, president and promoter of the Muskogee Union Railway, has sold his interest in the line to William Kenefick of Kansas City, who is building the road. It is stated that the line is now completed for 50 miles southwest from Wagoner, I. T., and has been operating between that point and Muskogee, where the headquarters of the line are to be situated. When finished the road will be 225 miles long from the Missouri Pacific at Wagoner to the Texas & Pacific at Whitesboro, Texas. General Manager Peyinghouse is reported as saying that all proposed improvements and extensions will be rushed to completion, and it is further reported that the town of Tishomingo is endeavoring to secure the road for that point.

Salisbury to Bivalve.

The Wicomico Electric Power Co., chartered at the last session of the Maryland legislature, has been organized at Salisbury, Md. The officers and incorporators are Thomas Perry, president; Charles R. Disharoon, vice-president; W. S. Gordy, Jr., secretary; H. L. Brewington, treasurer; W. J. Staton, James T. Truitt, E. A. Toadvine, M. A. Humphreys, J. D. Price, Dr. Samuel L. Graham of Salisbury, Isaac S. Bennett of Riverton, Robert F. Walter and J. W. P. Insley of Bivalve; finance committee, Thomas Perry, W. S. Gordy, Jr., W. J. Staton, Marion A. Humphreys and Dr. Samuel A. Graham.

The plan of the company is to build a railroad from Salisbury via Quantico to Bivalve, and also to operate a street rail-

way in Salisbury. This will involve the building of about 20 miles of line. Bivalve is on the Nanticoke river.

FOR A BELT LINE.

Louisville & Nashville Reported Buying Land Outside of Atlanta.

The Louisville & Nashville Railroad is reported to be buying more land in the vicinity of Atlanta for the purpose of building a belt line from a point near Ellen N Junction along the western side of the city to connect with the Atlanta & West Point and Central of Georgia lines into the Union Depot. The purchases, it is stated, are being made through the Louisville Property Co., which, it is said, has just paid \$120,000 for one piece of land desired. It is expected that the rights of way will reach a total cost of several hundred thousand dollars. The company proposes to build extensive freight terminals in the city between Central avenue or Lloyd street and Butler street. This is immediately adjoining the present union depot.

B. & O.'s Good Showing.

The Baltimore & Ohio Railroad Co. has issued a statement covering the fiscal year ended June 30, 1904, showing that after paying fixed charges, taxes, dividends, etc., there is nearly \$5,000,000 surplus for the 12 months. The gross earnings were \$65,071,081, an increase of \$1,600,305 as compared with the fiscal year ended June 30, 1903; but the expenses for the last year increased \$4,044,296, leaving a decrease in net earnings of \$2,443,991. The gross income was \$23,951,675, a decrease of \$1,544,363. The net income is \$12,305,618, out of which was paid \$7,400,000 in dividends, leaving a surplus of \$4,905,618. It is stated that the decrease in business has been met with a reasonable decrease in working force, and it is expected with a revival of good traffic conditions the results will be quite gratifying.

INTERSTATE RAILWAY.

Contract Reported Let for a Road From Kansas City to Duluth.

The Interstate Railway Co., according to a dispatch from Kansas City, has let a contract to grade 400 miles of its proposed line from there north to Minnesota, it being the purpose of the projectors to reach Duluth. The road is to be operated by electricity, and will take over different projected lines between the two cities. The road will run via St. Joseph, Mo.

The Consolidated Trust Co. of Kansas City is reported organized to build the line, with the following officers: President, Edward C. Sterger, Uvalde, Texas; vice-president, G. M. D. Grigsby, Dallas, Texas; second vice-president, C. M. Atkinson, Kansas City, Mo.

Nashville & Columbia.

Mr. J. H. Connor, general manager of the Nashville & Columbia and Nashville & Gallatin electric railways, writes the Manufacturers' Record from Nashville, Tenn., saying that they gave bond for \$25,000 each to carry out their contract to build the lines. He also says:

"Two surveying corps are now at work. The first two divisions north and south will be put under construction as soon as final location is made. The company is now ready to take bids for all machinery."

B. C. & A. "Summer Homes."

The Baltimore, Chesapeake & Atlantic Railway Co. has issued a handsomely printed and illustrated book entitled "Summer Homes," relating to the many resorts along its line across the Eastern Shore of Maryland. In addition to the reading matter describing different places,

on the road, and particularly Ocean City, Md., there is presented much data about hotel and boarding-house accommodations and the rates charged at each. An excellent map showing the route of the railway and steamer lines of the company is included, and will facilitate the agreeable task of consulting the book in preparation for a trip. Willard Thomson is vice-president, and T. Murdoch, passenger agent, of the company.

Kingsville, a Railroad Town.

The St. Louis, Brownsville & Mexico Railway is reported to have completed its office building and roundhouse at Kingsville, Texas, and, it is stated, proposes to build machine shops. The officers there are Jeff. N. Miller, vice-president and general manager; W. J. Church, auditor; H. W. Adams, general freight and passenger agent; C. B. Chase, master mechanic; S. Daily, general roadmaster; G. D. Hustis, trainmaster; W. J. Pollard, dispatcher; J. H. King, chief clerk of general freight office, and G. N. McElroy, ticket agent. This town is being established by the railroad company, and two brick buildings, besides numerous frame structures, are being erected. The town-site covers about 800 acres.

FROM TULSA INTO TEXAS.

Plans of the Kansas City, Tulsa & Southwestern Railway.

President Clifton George of the First National Bank of Tulsa, I. T., writes the Manufacturers' Record as follows:

"The Kansas City, Tulsa & Southwestern Railway will build from the Missouri Pacific in a southwesterly direction through Tulsa, Indian Territory, Oklahoma, and into Texas. The line will be some 250 miles in length, and will pass through some of the richest land in the new Southwest, being rich with coal and gas and oil, and very productive in an agricultural way. W. H. Hendron is the engineer in charge. Active work in making a permanent survey is being done."

Adair County Railroad.

Mr. J. G. Trimble, general attorney of the Quincy, Omaha & Kansas City Railroad Co., writes from Kansas City, Mo., to the Manufacturers' Record as follows:

"The Adair County Railroad Co. was organized to build a railroad about five miles in length to some coal mines in Adair county. It will start from a point on the Iowa & St. Louis Railway at Youngstown and run in a generally northwesterly direction up what is known as Billy's creek to reach four coal mines.

"The engineer in charge is E. M. Collins, Kansas City, Mo. Contract for construction has already been let, and grading is being done. The company does not expect to own any equipment."

COAL MINES AND RAILROAD.

Large Purchase of Fuel Lands Reported in Alabama.

According to dispatches from Jasper, Ala., Messrs. Erskine Ramsey and G. B. McCormack of Birmingham, Ala., are at the head of a company which has purchased several thousand acres of the best coal lands in Walker county, Alabama. They are about 10 miles northwest of Jasper, and it is proposed to build a railroad about two miles long to the mines, leaving the Northern Alabama Railway about one mile south of Saragossa. It is said that the coal seam is eight feet thick. Construction of the railroad and also of houses for the miners will, it is reported, begin soon.

Railroad Notes.

The Beaumont, Sour Lake & Western Railroad has begun regular operation of

its line between Beaumont and Sour Lake, 20 miles.

The Yadkin River Park Co. of Spencer, N. C., will, it is reported, establish an automobile line between Spencer, Salisbury and High Point, N. C.

Advices from St. Louis quote President Davidson of the Frisco system as saying that the line between St. Louis and Chicago is to be opened on August 1. It is 291 miles long.

Mr. Russell Harding has resigned as vice-president and general manager of the Missouri Pacific to become president of the Pere Marquette road, and also vice-president of the Cincinnati, Hamilton & Dayton and the Chicago, Cincinnati & Louisville lines.

The Southern Pacific Company has authorized the issue of \$100,000,000 of stock, of which \$40,000,000 will be issued immediately, and the remainder will be issued as required by the railroad company. This increase was decided upon at a special meeting held at Beaumont, near Louisville, Ky.

For Trade in Colombia.

Clodomiro Paz, Popayan, Cauca, Colombia, writes to the Manufacturers' Record that his business is to introduce into Colombia American and European manufactures, principally patent medicines, sweetmeats, stationery, jewelry, post-cards, books and periodicals, printers' supplies, clothing, picture frames, hardware, cigars and cigarettes, typewriters, copying presses, perfumery, meats and liquors. He desires to obtain catalogues and price-lists from American manufacturers.

Dmitri Lichatscheff of Odessa, Russia, writes to the Manufacturers' Record that he desires to get into communication with American manufacturers of apparatus for spraying grapevines with liquids destructive of insects.

The University of North Carolina James Sprunt Historical Monograph, No. 4. Letters and documents relating to the early history of the lower Cape Fear, with introduction and notes by Kemp P. Battle, LL. D.

This publication of the University of North Carolina contains extracts from the papers of the De Rosset family, members of which have been prominent residents of Wilmington since 1735; extracts from the journal of the board of commissioners of Wilmington prior to the American Revolution, with an introduction by Capt. Samuel A. Ashe of Raleigh, of distinguished Cape Fear stock; the journal of Joshua Potts in regard to location of Smithville, now Southport; letters of a loyalist, Mr. James Murray, 1735-1756; extracts from the diary of Gen. Joshua G. Smith, a United States officer stationed on the Carolina coast in 1807; letters of Capt. Samuel Ashe bearing upon men and events of the Revolution, and extracts from an oration by Col. James G. Burr at Wilmington in 1890, dealing with things antiquary. The University of North Carolina is exceedingly fortunate in having the means, through the generosity of Mr. James Sprunt of Wilmington, to publish such monographs, in enjoying the ripe scholarship and enthusiasm of Dr. Battle in their editing, and in the knowledge that old families in many sections of the State possess material valuable to the student of American history which should see the light in such monographs. Family letters, diaries and deeds are, after all, the true sources of American history, which is yet to be written, and the work being done by the University of North Carolina in seeking to publish them should be sustained by the co-operation of every possessor of such material.

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

A \$150,000 Damask Mill.

Another cotton mill will be located at Asheville, N. C., arrangements to that effect having been completed last week. Application has been made for incorporation with the title of the Elk Mountain Cotton Mill Co., capitalized at \$150,000, and arrangements will be made immediately for installing the textile equipment. A suitable building has been secured, and looms will be put in position for weaving table damask, toweling, bedspreads, etc. Later on the company will doubtless erect a mill for manufacturing the yarns needed in weaving the character of goods named. Power will be obtained from the W. T. Weaver Power Co.'s water-power-electrical plant. Among the incorporators are Messrs. D. G. Devenish, F. W. Graham, C. H. Miller, T. R. Hewitt, J. M. Westall, Peter Y. Yates and others. D. G. Devenish is at present treasurer of the Asheville Cotton Mills, and will resign that office to be general manager of the Elk Mountain Cotton Mill Co.

A 10,000-Spindle Addition.

Several weeks ago reference was made in this department to the Lowe Manufacturing Co. of Huntsville, Ala., as obtaining estimates on the erection of a large addition to its plant. The company has since decided to build, and contract for the new structure has been awarded to Messrs. T. C. Thompson & Bros. of Birmingham, Ala. The building will be three stories high, 80x140 feet, annexed to present structure, and an equipment of 10,000 spindles and complementary apparatus will be installed. Contract for the machinery has also been awarded.

Construction work has begun on the addition, and the company expects to have it in operation before the end of the present year. The cost will probably be about \$150,000. There are 15,000 spindles in the present mill.

To Add 8500 Spindles.

The Maple Cotton Mills of Dillon, S. C., will build another mill, to have an equipment of 8500 spindles. This decision was made at the company's meeting of stockholders last week. It will be necessary to erect a building 300 feet long to accommodate the new machinery, and the new structure will be annexed to the present plant, which latter will furnish the power required for operating. None of the machinery has been contracted for as yet, and the company is in the market for the boilers, shafting, hangers, pulleys, belting, 8500 spindles and accompanying apparatus, etc.

To Manufacture Yarn and Cordage.

The company reported last week as to be organized to establish a cotton mill at Columbus, Miss., will manufacture yarns and cordage. Its equipment to start with will be 1600 spindles, and both night and day production will be instituted as soon as the machinery is in position. A charter has been applied for, and officers will be elected soon. B. N. Love, now of the Tombigbee Cotton Mills, will be in charge.

Will Build at Columbus, Ga.

John T. Abney, superintendent of the Laurens Cotton Mills of Laurens, S. C., will build a cotton mill at Columbus, Ga., as was reported last week. The required capital has been assured, but no details as to the plant have been decided. There will be either 10,000 or 20,000 spindles installed. Further announcements will be made later.

Spool and Bobbin Factory.

G. E. Patrick of Seebert, W. Va., will establish a mill for the manufacture of cotton spools, bobbins, quills, etc., from maple wood, and is now in the market for the machinery required. He is also ready to contract with cotton factories for furnishing the products mentioned.

Textile Notes.

Carolina Mills, Greenville, S. C., has called a meeting of stockholders, to be held on August 16, to vote on a resolution of the directors to increase capital stock from \$50,000 to \$100,000.

Cotton-spinners of the Carolinas, Georgia, Alabama and Mississippi, representing more than 2,000,000 spindles, decided at a meeting at Greenville, S. C., to curtail productions 25 per cent. during August and September.

Blue Ridge Knitting Co., Hagerstown, Md., has erected another story on its mill building and awarded contract for the installation of 50 additional knitting machines, giving the plant an increased production of 250 dozen pairs of hosiery. Equipment at present is 200 machines.

Messrs. J. W. McLochlin, T. B. Upchurch, W. J. Upchurch and John Blue have incorporated the Raeford Power & Manufacturing Co. of Raeford, N. C., for the purpose of developing water-power and operating cotton mills. Capital stock authorized is \$200,000, of which amount, it is stated, \$15,000 has been subscribed. No details as to plant announced.

Lumber Notes.

The Denver Railroad planted last winter about 300,000 trees along its Pecos Valley line in Texas, and the national bureau of forestry is preparing to aid in the planting of trees on between 10,000 and 15,000 acres in the Texas Panhandle.

More than \$612,000 worth of building is under way in Chattanooga, Tenn., including \$335,600 in new industries and extensions of plants, \$121,885 in residences and \$89,200 in stores. The city government has under contract more than \$100,000 worth of work.

The lumber-manufacturing industry of the Norfolk section, covering the North Carolina short-leaf pine district, is reported to be in an eminently satisfactory condition. Manufacturers are in daily receipt of inquiries, and are meeting them to the best of their ability.

The Hardwood Lumber Co. of Hamburg, a suburb of Augusta, Ga., has accepted an order for 500,000 feet of cottonwood lumber for shipment to Hamburg, Germany. In the lowlands below Augusta there is an abundance of cottonwood, cypress and other valuable wood.

The Twin Territories Association of Retail Lumber Dealers at its annual meeting at Oklahoma City elected Messrs. P. T. Walton of Guthrie, president; G. J. Leeper of Oklahoma City, vice-president; J. E. Marrs of Wingfield, Kan., secretary, and Guy D. Rohrer of Newkirk, O. T., treasurer.

The Lhote Lumber & Manufacturing Co. has just completed at New Orleans a plant costing more than \$500,000. It occupies three squares, one being used for the factory, one for the stables and cypress yards and one for the pine yards. The plant manufactures doors, sashes, blinds, railings, moldings, balustrades, pedestals, brackets and other house finishings.

Mr. Hermann Decker, No. 4 Parkfield Road, Liverpool, England, writes to the Manufacturers' Record that he desires to obtain a map of the Southern States showing the location of all cotton compresses there.

MECHANICAL

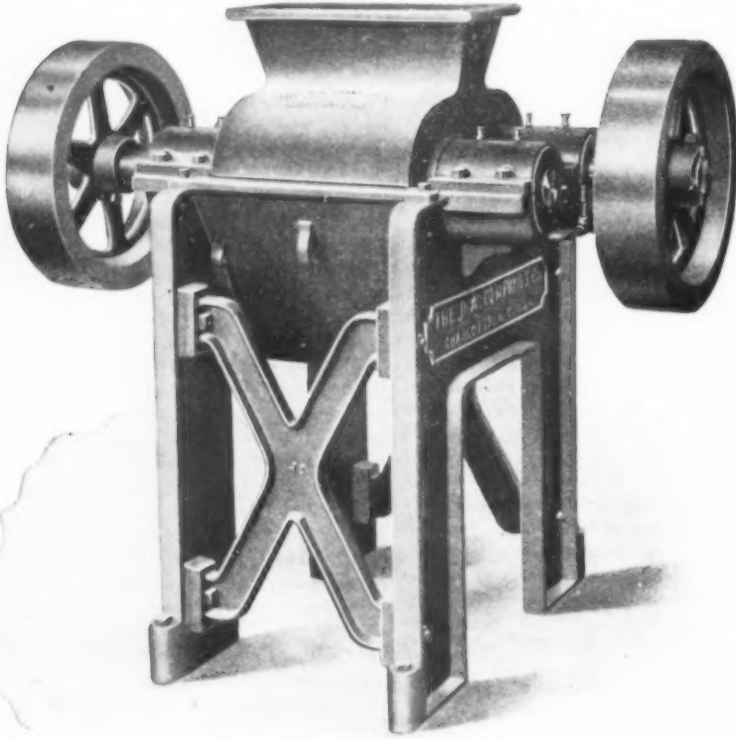
"Tompkins" Oilcake Cracker.

Following the dictates of an avowed policy of continuous improvement in the machinery it builds, the D. A. Tompkins Co. of Charlotte, N. C., has added several improvements to its oilcake cracker. This machine has been on the market for several years, and having passed through the "proving test" of practical and continuous

power for operation is furnished by two four-inch single belts.

Improved Loading Chain.

The Newhall Chain Forge & Iron Co., 9 Murray street, New York, is sending out a circular descriptive of its Long Lapped Weld "Trident" Steel Loading Chain, which will be of interest to users of this class of chain. An accompanying illustration shows the chain.



"TOMPKINS" OILCAKE CRACKER.

service, its record stands as an eloquent witness for the claims made for it.

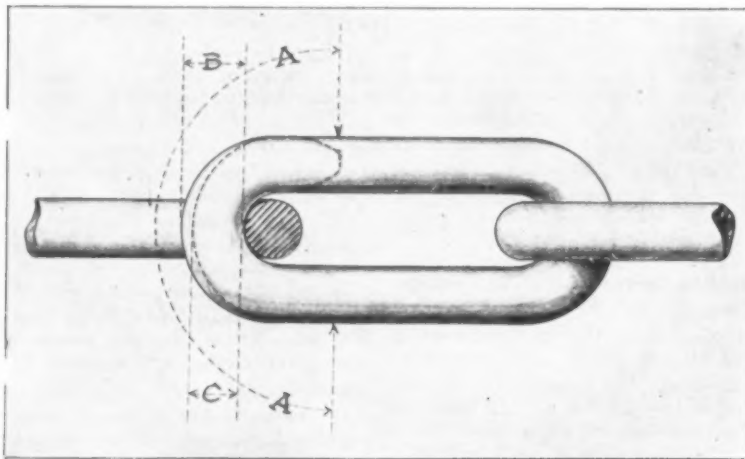
The principal features, tempered steel saws which break instead of crushing the cake, interchangeable ring-oiling bearings and the general construction of the machine remain the same, but there has been added an improved oiling device which insures an equal quantity of oil in each pair of bearings, and requires less frequent refilling of the oil chambers. The

A shows the long lapped weld, which practically locks itself under strain.

B shows the added strength obtained by the swell of the long lapped weld as compared with ordinary welds shown by C.

These loading and skidding chains are made from a special mixture, part of the stock being imported.

It is non-crystallizing, and will wear thin in the most severe weather without crystallizing.



IMPROVED LOADING CHAIN.

machine has also been so designed that each set of saws are driven by a separate pulley, instead of one set being driven by cut gears, as has heretofore been the case, though some still prefer the geared machine, and the manufacturer will furnish the cracker so equipped if desired.

The claim of the designer that this machine requires less than half the power to operate than any machine of equal capacity on the market would seem to need no further endorsement than that the

The chain not only has unusual wearing qualities, but has a greater tensile strength than ordinary steel or Lord Ward's chains.

A piece of five-sixteenths-inch chain recently tested parted under a strain of 8960 pounds with an elongation of 31 per cent., the chain pulling stiff before breaking.

Every effort is made by the manufacturer to produce high-grade chain. To insure uniformity of welds, one man makes a

chain complete; special stock is used; a piece 10 feet long is cut from every 500 feet of chain and tested; if a piece proves defective, the whole chain is thrown out.

Monitor Steam and Hot-Water Boilers

It is well known that steam and hot-water equipments are being used to a great extent for all kinds and all sizes of buildings. Because of this, attention is called to a certain make of boilers which has won a position among the foremost heating boilers either for steam or hot water, and is being used with great satisfaction by thousands of people. It is sometimes objected that steam and hot-water equipments require an unusual amount of fuel, and that there is danger from explosion.

But it is stated these objections have been entirely overcome in the Monitor Steam and Hot-Water Boilers.

The Monitor Boilers, see accompanying illustration, embody features that tend to perfect them from the standpoints of economy, durability and simplicity, convenience and safety. They are manufactured by the Monitor Steam Generator Manufacturing Co., main offices and factory at

by two to four studs and nuts, and can be removed by simply taking off the nuts. There is a fire door at front of boiler, which is fitted with small register wheel.

The base, also of cast iron, is of neat design, with draft door and register and a grate of clinker crushing and dumping type made up of sections. These sections are held in place by a bracket fastened by two bolts, and by taking out the bolts any or all of the grates can be taken out and new ones put in without removing the boiler.

The steam and hot-water boilers are practically the same, the only difference being in the tappings and trimmings. The trimmings sent with steam boilers are safety valve, automatic damper regulator, blow-off cock and water column, to which are attached steam gauge with syphon, water gauge and three gauge cocks. With hot-water boilers are sent thermometer, altitude gauge and blow-off cock.

For Southwest Immigration.

Twenty of the most influential and wealthy members of the Frisco System Land and Immigration Association, at a meeting at the offices of the association, Frisco Building, St. Louis, organized a



MONITOR HOT-WATER BOILER.

Landisville, Pa. The company has branch offices in the larger cities, and takes contracts for the complete installation of plants, guaranteeing them to meet the requirements of the purchaser. Its Baltimore office is at Fayette and Liberty streets, U. J. Bossler being manager.

The Monitor coil boiler is made up of an outside water-leg formed by two shells riveted together in a manner to allow two inches or more of space between them, which acts as a reservoir for water and steam, while within the water-leg are enclosed one or more pipe coils (according to size of boiler), connected to water-leg, each separately, by nipples at top and bottom. This water-leg is made of the best steel or wrought-iron boiler plate, and the coils from best quality double-thick wrought-iron pipe. The shell is surmounted by a cast-iron dome, provided with a neck for smoke pipe, coal chute and cover, and draft doors. To the coal chute is fastened a cast-iron magazine extending downward through the center coil. This magazine also has a cover, which can be lifted by lever at back of dome to receive coal, and then be left to drop into place. A cast-iron heat deflector is also connected to coal chute. The dome is fastened to shell

\$500,000 corporation for the purpose of aiding and encouraging immigration to the Southwest. This company was incorporated under the laws of Missouri for \$500,000, with the following members as incorporators: A. M. Coffman, Carmen, O. T.; John S. Callaway, Quanah, Texas; S. B. and John W. Edwards, Eldorado, O. T.; C. L. Spence, Cincinnati, Ohio; W. A. Stinson, Frederick, O. T.; A. M. Coons, Muncie, Ind.; S. L. Hurlburt, Waco, Mo.; E. H. Perry, Oklahoma City, O. T.; Eli Howell, Stroud, O. T.; Willard Frommer, C. E. F. Greve, S. P. Brundage and W. R. Draper, St. Louis; J. T. Thompson, Chicago; H. I. McGuire, Cincinnati, Ohio; F. W. Casner, Kansas City, Mo.; M. L. Cowan, Leger, O. T.; Charles Stephens, Columbus, Kan., and W. B. Crothers, Brady, Texas.

The officers are S. P. Brundage, general manager; A. M. Coffman, president; John S. Callaway, vice-president; Willard Frommer, secretary-treasurer.

It is the purpose of this company to colonize the Southwest with a healthy and substantial class of immigrants.

Extensive prospecting for tin is under way near Cherryville, N. C.

Construction Department

TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY.

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ADDRESS FULLY.

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

WRITE DIRECTLY.

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and more attention than a mere circular.

BALTIMORE BUILDING NOTES.

Business Buildings.

Baltimore—Warehouse.—J. J. McCready & Co., 37 West Cross street, have awarded contract to Felix McGinnity, builder, 827 East Chase street, for the construction of warehouse to be located at 107 and 109 South Frederick street. Structure to be three stories high, 25x30 feet; brick with stone trimmings; concrete foundation; tin roofing; galvanized-iron cornice; sanitary plumbing; gas fixtures; cost to be about \$6000. This building previously mentioned.

Baltimore—Office Building.—J. Latimer Hoffman, 112 East Franklin street, has awarded contract to John T. West, builder, 1109 Clendenin street, for the construction of office building to be located at 11 East Lexington street, after plans and specifications by Wm. J. Beardsley, architect, 28 West Lexington street. Structure to be six stories high with basement, 30.8x110.3 feet; brick with artificial stone trimmings; concrete foundations; steel beams; cast-iron columns; tin roofing; galvanized-iron cornice and skylight; fireproof partitions; tile flooring; metal ceilings; fire-escape; reinforced concrete floor; electric wiring and fixtures; sanitary plumbing; steam-heating system; power elevator. Electrical work, heating system and elevator not included in contract. This building previously mentioned.

Baltimore—Church Building.—St. Mark's Methodist Episcopal Church, Forest Park, Baltimore, will erect church and parsonage after plans and specifications by Haskell & Barnes, architects, Central Savings Bank Building, 3 East Lexington street. Church to be one story high, 44x24 feet; frame construction; stone base; slate roofing; sanitary plumbing; steam-heating system. Parsonage to be two stories high, 30x70 feet; frame construction; stone base; slate roofing; sanitary plumbing; steam-heating system. Thos. B. Standfield & Son, 109 Clay street; A. K. Boteler, 1305 Shields alley, and Thomas L. Jones & Son, 410 West Saratoga street, have

been selected to bid on the construction. Bids to be in July 28.

Baltimore—Laboratory.—The Johns Hopkins Hospital, 211 North Charles street, has awarded contract to Thomas L. Jones & Son, builders, 410 West Saratoga street, for the construction of laboratory to be located at Broadway and Monument street, after plans and specifications by Archer & Allen, architects, Central Savings Bank Building, 3 East Lexington street. Structure to be two stories high, 30x50 feet; brick with stone trimmings; concrete foundation; slate roofing; electric wiring and fixtures; sanitary plumbing; steam-heating system; cost to be about \$10,000.

Baltimore—Dwellings.—Daniel Bangert, 926 North Fulton avenue, has awarded contract to Frank Novak, builder, Patterson Park avenue and Madison street, for the construction of 11 dwellings to be located at Ramsay and Barre streets. Structures to be two stories high, 13x40 feet; brick with stone trimmings; tin roofing; galvanized-iron cornice; gas fixtures; sanitary plumbing; furnace-heating systems; cost to be about \$10,000.

Baltimore—Warehouse.—Further details have been obtained concerning warehouse for Dr. George Barrie, 1601 22d street, Washington, D. C., to be erected at 30 Hanover street, after plans and specifications by Marsh & Peter, architects, 520 13th street, Washington, D. C. Structure to be five stories high with basement, 28.2x107.6 feet; brick with granite base and Indiana limestone trimmings; concrete foundation; steel beams and girders; slag roofing; galvanized-iron cornice, coping and skylight; fireproof vault; pavement lights; fire-escape; prismatic

Building, 2 East Lexington street. Structure to be four stories high, 42.2x54 feet; brick with stone trimmings; concrete foundation; steel beams; slag roofing; galvanized-iron cornice; electric wiring and fixtures; sanitary plumbing; steam heating; elevator; cost to be about \$10,000.

Baltimore—Warehouse.—Henry S. Rippel, builder, 7 Clay street, will erect for himself, after his own plans and specifications, warehouse to be located at 14 McClellan's alley. Structure to be six stories high, 23.9x82 feet; brick with stone trimmings; concrete foundations; slag roofing; gas fixtures; sanitary plumbing; hand elevator; cost to be about \$6000.

Baltimore—Store Building.—Joseph L. Brent, 516 St. Paul street, as trustee, has awarded contract to the Charles McCaul Company, builders, 123 West Saratoga street, for the construction of store building to be located at 123 East Baltimore street after plans and specifications by Wyatt & Nolting, architects, Builders' Exchange Building, 2 East Lexington street. Structure to be three stories high with basement, 20x67.9 feet; brick with bluestone base; ornamental terra-cotta trimmings, balustrade and cornice; concrete foundation; steel beams; slag roofing; prismatic vault lights; galvanized-iron frames, sashes and skylight; mosaic flooring; prismatic glass; electric wiring and fixtures; sanitary plumbing; steam-heating system. Pavement not included in contract. This building previously mentioned.

Baltimore—Store Building.—Samuel Jacoby, 2301 Madison avenue, has awarded contract to Farley & Monmonier, builders, 17 North Frederick street, for the construction of store

commissioned J. Appleton Wilson, architect, 303 Courtland street, to prepare plans and specifications for banking building to be located at 216 East Baltimore street. Structure to be three stories high; ornate brick front; concrete foundation; steel beams; tin roofing; electric wiring and fixtures; sanitary plumbing; steam-heating system. This building will be occupied by Wilson, Colston & Co., bankers, 417 North Charles street.

Baltimore—Warehouse.—Further details have been obtained concerning warehouse for the Johns Hopkins Hospital trust estate, 211 North Charles street, to be erected at 114 South street, after plans and specifications by Butler & Rodman, architects, 335 North Charles street. Structure to be four stories high, 28.3x136.11 feet; brick with limestone and copper trimmings; concrete foundation; steel beams; slag roofing; electric wiring and fixtures; sanitary plumbing; steam-heating system; elevator. John Hiltz & Son, 3 Clay street; Andrew J. Robinson Company, 30 West Franklin street; John A. Sheridan Company, 321 North Holliday street; John Waters, 23 East Centre street; Wm. Steele & Sons, 17 West Saratoga street, and John Cowan, 106 West Madison street, have been selected to bid on the construction. Bids to be in about July 28.

Baltimore—Store Building.—The Central Savings Bank, Charles and Lexington streets, has awarded contract to B. F. Bennett, builder, 123 South Howard street, for the construction of store building to be located at 5 East Lexington street, after plans and specifications by Archer & Allen, architects, Central Savings Bank Building, 3 East Lexington street. Structure to be three stories high with basement, 27.7x74 feet; brick with limestone trimmings; concrete foundation; steel beams; slag and copper roofing; electric wiring and fixtures; sanitary plumbing; steam-heating system. Joseph Schloss & Son, tailors, 205 North Charles street, will occupy the building. This building previously mentioned.

Baltimore—Store Building.—Lemuel T. Appold, Colonial Trust Co., Saratoga street, near Charles street, has awarded contract to Thomas L. Jones & Son, builders, 410 West Saratoga street, for the construction of store building to be located at 18 and 20 East Baltimore street, after plans and specifications by Sperry, York & Sawyer, architects, Builders' Exchange Building, 2 East Lexington street. Structure to be three stories high, 30.5x115.7 feet; ornamental terra-cotta and cast-iron front; granite base; concrete foundation; steel beams and girders; tin roofing; granolithic pavement; pavement lights; fire escapes; copper frames and sashes; wireglass; galvanized-iron skylight; electric wiring and fixtures; sanitary plumbing; steam-heating system; elevator. Elevator car and machinery, electrical work and heating system not included in contract. Huyler's Candy Co. of New York will occupy the building. This building previously mentioned.

Baltimore—Warehouse.—Emanuel Greenbaum, 1614 Eutaw Place, has awarded contract to Morrow Bros., builders, 212 Clay street, for the construction of warehouse to be located at southeast corner Hanover and German streets, after plans and specifications by Sperry, York & Sawyer, architects, Builders' Exchange Building, 2 East Lexington street. Structure to be five stories high with basement, 49x88 feet; brick with granite base and ornamental terra-cotta trimmings; concrete foundation; steel beams; cast-iron columns; tin roofing; fireproof vaults; cement pavement; pavement lights; box chute; metal frames and sashes; wireglass; galvanized-iron skylight; electric wiring and fixtures; sanitary plumbing; steam-heating system; power elevator; pavement lift. Elevator car and machinery, pavement lift, electrical work, heating apparatus and painting brick walls not included in contract. Carter, Webster & Co., wholesale notions, temporarily located at 311 North Howard street, will occupy the building. This building previously mentioned.

Baltimore—Office Building.—The Gaither estate, 224 St. Paul street, has awarded contract to James Stewart & Co., builder, 319 North Charles street, for the construction of office building to be located at 165, 167 and 169 North Charles street, after plans and specifications by Martin C. Miller, architect, Mutual Life Building, Buffalo, N. Y. Structure to be seven stories high, 47.6x88.5 feet; brick with terra-cotta and marble trimmings; concrete foundation; steel frame construction; curtain walls; terra-cotta

Best Medium for Information.

WELSBACH COMPANY,
1421 North Charles Street.

Baltimore, Md., July 12, 1904.

Manufacturers' Record Publishing Co., Baltimore:

Gentlemen—In renewing our subscription to the MANUFACTURERS' RECORD for another year, I take pleasure in assuring you this paper has been of great assistance to us in securing business within the burnt district. It has kept us at all times well advised of the movements of prospective customers, and the details of this information have been remarkably accurate. We are pleased to recommend it as the best medium for information concerning new Baltimore.

Very truly yours,

FRANK W. EMORY, Manager.

glass; possibly metal frames and sashes glazed with wireglass; electric wiring and fixtures; sanitary plumbing; steam-heating system; electric elevator. Heating system, electrical work and gas piping not included in contract. Richardson & Burgess, 1005 Linden avenue; Burnham & Wells, Builders' Exchange Building, 2 East Lexington street; Henry Smith & Sons Co., 116 S. Register street; Brady & Watters, 552 St. Paul street, and Henderson & Co., Ltd., 218 West Fayette street, all of Baltimore, Md., and Wm. P. Lipscomb & Co., 612 14th street, Washington, D. C., have been selected to bid on the construction. Bids to be in August 2. These details reported in the Manufacturers' Record of July 21, with the exception of additional bidders, Brady & Watters and Henderson & Co.

Baltimore—Warehouse.—Mrs. Helen A. Linthicum, 705 St. Paul street, has awarded contract to Leonard F. Fowler, builder, 101 Dover street, for the construction of warehouse to be located at 23 and 25 South Calvert street after plans and specifications by Herbert G. Crisp, architect, Builders' Exchange Building, 2 East Lexington street. Structure to be four stories high, 38.1x48 feet; brick with stone trimmings; concrete foundation; steel beams; slag roofing; galvanized-iron cornice; electric wiring and fixtures; sanitary plumbing; steam heating; elevator; cost to be about \$10,000.

Baltimore—Warehouse.—Mrs. Helen A. Linthicum, 705 St. Paul street, has awarded contract to Leonard F. Fowler, builder, 101 Dover street, for the construction of warehouse to be located at 202 and 204 Water street after plans and specifications by Herbert G. Crisp, architect, Builders' Exchange

building to be located at 418 East Baltimore street after plans and specifications by Louis Levi, architect, Central Savings Bank Building, 3 East Lexington street. Structure to be three stories high with basement, 22x98.3 feet; Pompeian brick front with granite base and ornamental terra-cotta trimmings; concrete foundation; steel beams and girders; slag roofing; cement pavement; leaded and prismatic glass; expanded metal partitions; fire shutters; copper and plate-glass store front; prismatic glass skylight; electric wiring and fixtures; sanitary plumbing; steam-heating system. Heating system, office partitions, electrical work and electric and gas fixtures not included in contract. This building previously mentioned.

Baltimore—Store Buildings.—Baldwin & Frick, Charles and Clay streets, as agents, have purchased the property located at 119 and 121 East Baltimore street and 4 South Calvert street, fronting 34 feet on Baltimore street and 29 feet on Calvert street, and the sites will be improved with modern store buildings.

Baltimore—Store Building.—Patrick Kirwan, 104 West Fayette street, has commissioned Butler & Rodman, architects, 335 North Charles street, to prepare plans and specifications for store building to be located at 9 West Fayette street. Structure to be four stories high, 19x74 feet; brick with galvanized-iron trimmings; concrete foundation; steel beams; tin or slag roofing; galvanized-iron cornice; electric wiring and fixtures; sanitary plumbing; steam-heating system; elevator; cost to be about \$16,000.

Baltimore—Banking-house.—The Johns Hopkins University trust estate, R. Brent Keyser, 14 East Mount Vernon Place, has

fireproofing; slag roofing; galvanized-iron cornice, coping and skylights; metal frames and sashes; wireglass; prismatic and leaded glass; fire escape; vault doors; terrazzo floors; mail chute; ornamental iron front for first and second stories; cast-iron stairways, with slate and marble treads; electric wiring and fixtures; sanitary plumbing; steam-heating system; power elevators. Electrical work, plumbing, heating system and elevators not included in contract. This building previously mentioned.

Baltimore—Warehouses.—Further details have been obtained concerning three warehouses for the William Keyser estate, R. Brent Keyser, trustee, 14 East Mount Vernon Place, and the Johns Hopkins Hospital trust estate, 211 North Charles street, to be erected at 21, 23 and 25 Hanover street, after plans and specifications by Wyatt & Nolting, architects, Builders' Exchange Building, 2 East Lexington street. Structures to be five stories high with basements, 89.10x160.8 feet; brick with granite base and ornamental terra-cotta and cast-iron trimmings; concrete foundations; steel beams and cast-iron columns covered with fireproofing material; tin roofing; mill construction; galvanized-iron frames and sashes glazed with prismatic wireglass throughout buildings; ornamental iron grill work; cast-iron entrance steps; vault lights; box chutes; galvanized-iron skylights; fireproof vaults; electric wiring and fixtures; sanitary plumbing; steam-heating system; three electric passenger elevators; three belt-driven freight elevators; three electric pavement lifts; three dumbwaiters. James Stewart & Co., 319 North Charles street; Charles Gilpin, 21 East Saratoga street; Frank R. Gilbreth, 211 North Liberty street; Henry Smith & Sons Company, 116 South Regester street; Tidewater Building Co., 227 St. Paul street; Henderson & Co., Ltd., 218 West Fayette street; B. F. Bennett, 123 South Howard street; Morrow Bros., 212 Clay street; Wm. Steele & Sons, 17 West Saratoga street; Murphy Construction Co., 202 West Fayette street, and John Gill & Sons, 11 East Saratoga street, have been selected to bid on the construction. Bids to be in August 3.

Baltimore—Bank Building.—The building committee of the Savings Bank of Baltimore, Courthouse, Lexington and Calvert streets, has commissioned Parker & Thomas, architects, 612 North Calvert street, to prepare plans and specifications for its new bank building to be located southeast corner Charles and Baltimore streets. Structure to be one story high with basement, 97x156 feet; ornate stone or marble exterior; concrete foundation; fireproof construction throughout; fireproof banking vaults; ornamental glass skylight; electric wiring and fixtures; sanitary plumbing; steam-heating system.

Baltimore—Restaurant.—The Gottlieb-Baumann-Schmidt-Straus Brewing Co., southwest corner Park avenue and Fayette street, has commissioned Worthington & Ahrens, architects, 8 East Lexington street, to prepare plans and specifications for restaurant to be located at 712 East Pratt street. Structure to be three stories high, 25.4x34 feet; brick with stone trimmings; concrete foundation; steel beams; tin roofing; galvanized-iron cornice; electric wiring and fixtures; sanitary plumbing; heating system. Joseph Schamberger, builder, 224 Boyer street, has the contract for construction. This building previously mentioned.

Baltimore—Store Building.—E. A. Klehne, 712 East Baltimore street, has commissioned the Woodruff-McLaughlin Company, constructing engineers and architects, 100 East Lexington street, to prepare plans and specifications for and construct store building to be located at 607 and 609 East Baltimore street. Structure to be four stories high, 31x100 feet; iron-spotted brick with cut stone and terra-cotta trimmings; concrete foundations; steel beams; slag roofing; galvanized-iron skylight; metal frames and sashes glazed with wireglass in rear; prismatic glass; mill construction; electric wiring and fixtures; sanitary plumbing; steam-heating system; power elevator.

Baltimore—Warehouse.—Further details have been obtained concerning warehouse for the estate of Joseph H. Riemann to be erected at southeast corner Howard and German streets, after plans and specifications by Haskell & Barnes, architects, Central Savings Bank Building, 3 East Lexington street. Structure to be six stories high with basement, 52.6x80.6; mottled brick with ornamental terra-cotta trimmings; concrete foundations; steel beams; cast-iron columns; tin roofing; galvanized-iron cornice and skylight; electric wiring and fixtures; sanitary plumbing; steam-heating system; two electric elevators. William Ferguson & Bro., builders, 214 Clay street, are the only builders estimating on the construction.

Baltimore—Warehouse.—William L. Lyon,

Y. M. C. A. Building, Charles and Saratoga streets, has awarded contract to Thomas P. Johns, builder, 403 McCulloh street, for the construction of warehouse to be located on Balderston street, near Light street, after plans and specifications by J. E. Laferty, architect, Builders' Exchange Building, 2 East Lexington street. Structure to be three stories high, 52x116 feet; brick with stone trimmings; concrete foundation; steel beams; cast-iron columns; slag roofing; galvanized-iron cornice; electric wiring and fixtures; sanitary plumbing; steam-heating system; power elevator. This building previously mentioned.

Baltimore—Store Building.—George E. W. Hardy, 211 North Liberty street, has awarded contract to Tattersson & Thuman, builders, Pratt and Greene streets, for the construction of store building to be located at 16 East Fayette street, after plans and specifications by Charles E. Cassell & Son, architects, 411 North Charles street. Structure to be three stories high with basement, 29x77.5 feet; brick with ornamental terra-cotta trimmings; concrete foundation; steel beams; tin roofing; galvanized iron cornice and skylight; electric wiring and fixtures; sanitary plumbing; steam-heating system. This building previously mentioned.

Baltimore—Dwellings.—Joseph Schamberger, builder, 224 Boyer street, will erect for himself, after his own plans and specifications, 10 dwelling-houses to be located on East Baltimore street, near Potomac. Four to be three and six to be two stories high; brick with stone trimmings; concrete foundations; tin roofing; galvanized-iron cornices; gas fixtures; sanitary plumbing; furnace-heating system; cost to be about \$20,000.

Baltimore—Warehouse.—Thomas A. Whelan, Fidelity & Deposit Co., Charles and Lexington streets, has awarded contract to John Stack & Sons, builders, 250 West Preston street, for the construction of warehouse to be located at northwest corner Charles and Lombard streets, after plans and specifications by the builders. Structure to be four stories high, 20x73.6 feet; brick with Texas marble base and trimmings; concrete foundation; steel beams and girders; slag roofing; galvanized-iron cornice and skylight; granolithic pavement; gas fixtures; sanitary plumbing; furnace-heating system; hand elevator. This building previously mentioned.

Baltimore—Warehouse.—Harris & Thompson, 216 St. Paul street, as trustees for the Manly estate, have engaged the Woodruff-McLaughlin Company, constructing engineers and architects, 100 East Lexington street, to prepare plans and specifications for and construct warehouse to be located at 115 South Gay street. Structure to be four stories high, 24.7x100 feet; pressed brick with cut-stone trimmings; steel beams; slag roofing; electric wiring and fixtures; sanitary plumbing; steam-heating system; electric elevator.

Baltimore—Warehouse.—Charles J. Bonaparte, 216 St. Paul street, has awarded contract to John Cowan, builder, 106 West Madison street, for the construction of warehouse to be located at 615 Water street. Structure to be three stories high, 25x51 feet; brick with stone trimmings; concrete foundation; steel beams; tin roofing; galvanized iron cornice; gas fixtures; sanitary plumbing; cost to be about \$20,000.

Baltimore—The Sun Building.—The A. S. Abell Company, proprietors of The Sun, Calvert and Saratoga streets, have purchased the lot, 52.9x115 feet, on the southwest corner Baltimore and Charles streets, and will erect on the site a building to be devoted to the exclusive use of the paper. It is rumored that architects have been selected to make the plans and specifications for the building.

Baltimore—Store Building.—Joseph Felsner, 1000 Hanover street, has awarded contract to E. Eyring, builder, 628 North 3d street E., for the construction of store building to be located at 1025 and 1027 South Charles street, after plans and specifications by J. E. Laferty, architect, Builders' Exchange Building, 2 East Lexington street. Structure to be two stories high with basement, 27x60 feet; brick with galvanized-iron trimmings; concrete foundation; steel beams; tin roofing; galvanized-iron cornice; gas fixtures; sanitary plumbing; heating system.

Baltimore—Office Building.—The Consolidated Gas Co., 602 North Charles street, Alton S. Miller, general manager, has commissioned Sperry, York & Sawyer, architects, Builders' Exchange Building, 2 East Lexington street, to prepare plans and specifications for office building to be located at northwest corner Lexington and Liberty streets. Structure to be five stories high with basement; brick with ornamental terra-cotta trimmings; concrete foundations; steel beams and girders; cast-iron columns; fireproof construction; slag roofing; electric wiring and fixtures;

sanitary plumbing; steam-heating system; electric elevator; fireproof vaults.

Baltimore—Warehouse.—Further details have been obtained concerning warehouse for the Janney heirs, S. S. Janney, 204 North Calvert street, trustee, to be erected at 118 and 120 East Pratt street, after plans and specifications by Archer & Allen, architects, Central Savings Bank Building, 3 East Lexington street. Structure to be four stories high, 42x92 feet; brick with stone trimmings; concrete foundations on piling; steel beams; cast-iron columns; slag roofing; galvanized-iron cornice and skylight; electric wiring and fixtures; sanitary plumbing; elevator. Electric wiring and fixtures and elevators not included in contract. Plans are now in the hands of selected builders for estimates on the construction. Bids to be in August 2.

Baltimore—Hotel.—Miss Sadie Hoffman of New York has awarded contract to Israel Griffith, builder, Builders' Exchange Building, 2 East Lexington street, for the construction of hotel to be located at northwest corner Pratt and Center Market Space, after plans and specifications by Charles M. Anderson, architect, 333 North Charles street. Structure to be four stories high, 32x67 feet; red sand brick with granite base and terra-cotta and Seneca stone trimmings; concrete foundations; steel beams and girders; cast-iron columns; slag roofing; galvanized-iron cornice; fireproof floor and partitions; tile flooring; galvanized iron-skylight glazed with wireglass; cast-iron stairway; fire-escape; metal ceiling; cement pavement; electric wiring and fixtures; sanitary plumbing; steam-heating system. Heating system, plumbing, electrical work, gas and electric fixtures and concrete footings not included in contract. This building previously mentioned.

Manufacturing Buildings and Other Enterprises.

Baltimore—Manufacturing Plant.—Further details have been obtained concerning manufacturing plant for the International Syndicate Co., 17 and 19 Little Sharp street, to be located at 213, 215 and 217 North street, after plans and specifications by Woodruff-McLaughlin Company, constructing engineer and architect, 100 East Lexington street. Structure to be six stories high, 50x100 feet; brick with cut-stone trimmings; concrete foundations; steel beams; cast-iron columns; electric wiring and fixtures; sanitary plumbing; steam-heating system; electric elevator; boilers; engine. The Woodruff-McLaughlin Company, 100 East Lexington street; Charles L. Stockhausen, 414 East Fayette street; John A. Sheridan Co., 321 North Holliday street; J. J. Knight & Son, 106 Clay street, and I. F. Ridinger, 223 St. Paul street, have been selected to bid on the construction. Bids to be in July 28.

Baltimore—Real Estate.—The Hamburger Real Estate Co. has been incorporated, with an authorized capital stock of \$27,000, for dealing in real estate, by Philip Hamburger, Solomon Hamburger, Leon Hamburger and Henry L. Hamburger, all at 16 South Eutaw street, and Louis B. Bernel.

Baltimore—Printing Plant.—The Baltimore Automatic Addressing Co. has been incorporated, with an authorized capital stock of \$10,000, for operating a printing plant, by Charles P. Brown, Joseph P. Bryan, Harry C. Sinclair, Olin Bryan, 406 St. Paul street, and John C. Tolson, 406 St. Paul street.

Baltimore—Building Materials.—The Cosmic Cement, Tile & Stone Co. has been incorporated, with an authorized capital stock of \$200,000, for dealing in stone, tiles, cement, etc., by S. H. Calkins, 208 North Liberty street; James F. Morrison, 2017 Eutaw Place; Pierce B. Wilson, Jr., 1742 Druid Hill avenue; Morrill N. Packard, 22 East Lexington street, and Duncan MacCalman, 891 West Fayette street.

Subbids Wanted.

Mention of contractors wanting subbids on construction work and material will be found, when published, in the "Machinery Wanted" column on another page under the heading of "Building Equipment and Supplies."

The Southern Cotton Corporation has been incorporated at Trenton, N. J., with an authorized capital stock of \$20,000,000, by Samuel F. B. Morse of New York, John J. Treacy of Jersey City and Thomas P. Grasty of Baltimore, Md. This company's purpose is to introduce improved mechanical equipments for ginning and baling cotton, as well as a comprehensive warehouse system that will enable cotton-growers to hold their crop, when desired, instead of selling early in the season. Branch offices will be established in the principal Southern cities. The directors of the company will be well-known men of Baltimore, St. Louis, New Orleans and other Southern cities. All correspond-

ence for the company should be addressed to Samuel F. B. Morse of the Southern Cotton Corporation, care of Messrs. Daniel J. Sully & Co., Wall Street Exchange Building, New York city.

ALABAMA.

Akron—Lumber Company.—Crabtree Lumber Co. has been incorporated by O. V. Crabtree of Scottsboro, Ala.; J. M. Card, S. H. Card and Fred Arn of Chattanooga, Tenn.; capital \$10,000.

Anniston—Real Estate.—Kate O. Roberts, E. E. G. Roberts, Addie McKay and associates have incorporated the Christine Avenue Land Co. with \$9000 capital.

Anniston—Electric Appliances.—Southern Electric & Manufacturing Co., reported incorporated last week with \$100,000 capital, to manufacture electrical appliances, has acquired two acres of land on which to erect machine shop, 96x50 feet, equipped with the most modern machinery and operated by electric motors, and three-story office building; structures to have steam heat, electric lights, etc.

Birmingham—Cemetery.—Elm Leaf Cemetery Association has been incorporated with Dr. F. D. Nabers, president, and J. N. Gunnels, secretary-treasurer. Company has purchased from Shaw & McWhorter the Elm Leaf Cemetery and 40 acres adjoining, which will be improved as cemetery site. Lodge will be erected, mortuary and new roadways opened. Office, 312 North 20th street, Birmingham.

Birmingham—Coal Mines.—Crescent Coal Co. has been incorporated with \$100,000 capital. Company has purchased the property of the Seloca Coal Co., near Warrior, Ala., consisting of about 1500 acres, with an output of 300 tons of coal per day, which will be at once increased to 300 tons. Culpepper Exum is president; W. N. Malone, vice-president; W. B. Leake, secretary-treasurer, and J. B. Carrington, manager.

Columbiana—Telephone System.—Incorporated: White & Davis Telephone Co., with \$10,000 capital, by N. Davis, W. F. Davis, W. P. and J. R. White.

Decatur—Light, Power and Fuel Company.—Chartered: Decatur Light, Power & Fuel Co., by Charles E. Mayer and others.

Ensley—Chemical Works.—Semet-Solvey Company is erecting addition, 20x60 feet, to plant.

Florence—Planing Mills.—A. M. Llewellyn and W. C. Henderson, reported last week as having purchased the Bellamy Planing Mills, which they would improve and operate, will increase capital from \$15,000 to \$25,000 and operate as the Bellamy Planing Mill Co.*

Gadsden—Water-works.—The courts have decided in favor of the franchise for water-works granted to W. H. Weller and R. A. Mitchell by a previous municipal administration, and the validity of which had been disputed by the present municipal authorities. The city recently voted an issuance of \$100,000 in bonds for the construction of a system of water-works to be owned and operated by the city, and Messrs. Mitchell and Weller have applied for an injunction against this action.

Huntsville—Cotton Mill.—Lowe Manufacturing Co.'s additional building, reported last week as contracted for with T. C. Thompson & Bro. of Birmingham, will be three stories high, 80x140 feet, and is to hold 10,000 spindles and complementary apparatus. Contract for machinery also awarded.

Jasper—Coal Mines.—Reports state that Erskine Ramsey and G. B. McCormack of Birmingham, Ala., and associates have purchased several thousand acres of coal lands in Walker county, which will be extensively developed. About \$100,000 will be invested.

Jasper—Coal Mines.—Incorporated: Gayosa Coal Co., with \$100,000 capital, by A. S. Preston, Muna Cannon, H. P. Gibson, L. B. Musgrove and others.

Riverside—Brick Works.—Riverside Brick Co. has been incorporated with \$44,000 capital and W. H. Thompson, president and treasurer; T. C. Thompson, vice-president, and B. A. Thompson, secretary, all of Birmingham, Ala. Company has purchased large body of clay land, plant and equipment of the Coosa Brick & Manufacturing Co. on the Coosa river in Talladega county. Plant will be remodeled and operated; capacity from 40,000 to 60,000 bricks per day.

Talladega—Water-power-Electric Plant.—Talladega Electric Power Co., reported last week with \$50,000 capital, has purchased all the holdings of the Talladega Company, including the dam across Choccolocco creek, and will finish the water-power development and the construction of power-house to furnish electricity for transmission to Talladega.

ARKANSAS.

Farmington—Lime Works.—C. W. Appleby, John Rehm and A. W. Shreve have incorporated the Alba Lime Co., to deal in and manufacture lime, plaster, cements, barrels, casks, etc.; capital \$25,000; office, Fayetteville, Ark.

Marianna—Mixon-McClintock Company has incorporated with \$25,000 capital. W. S. McClintock is president; R. L. Mixon, vice-president, and D. S. Clark, secretary-treasurer.

Rector—Box and Crate Factory and Electric-light Plant.—Proctor Box & Crate Co. has been incorporated by Cochran & Sides, Ed King, E. M. Allen, A. West, J. D. Proctor, James S. Davis and associates to manufacture boxes, crates, etc., and to operate electric-light plant; capital \$25,000.

Texarkana—Saw, Planing and Shingle Mills.—Porter-Wadley Lumber Co. has been incorporated, with \$100,000 capital, by A. B. Rank, J. K. Wadley and E. E. Porter, to deal in timber land, operate saw-mills, planing mills and shingle mills.

FLORIDA.

Ocala—Electric-light Plant Improvements. City has voted the issuance of \$45,000 of bonds, a portion of which will be used in improving its electric-light plant. Address The Mayor.

Gainesville—Machine Shop and Foundry.—L. P. Larson, who has been operating the Gainesville Machine Works under lease, has purchased and will enlarge the plant. Mr. Larson has leased property in South Gainesville on which to erect foundry, thereby increasing capacity.

Miami—Starch Factory.—It is reported that A. Jearnigan of New York has organized company and will establish plant for the manufacture of starch.

Miami—Extract Factory.—Manetto Company has been organized, with \$100,000 capital, to take over, enlarge and operate the plant of the Florida Extract Co. E. C. Klipstein is president; A. Klipstein, vice-president; M. Brown, treasurer, and Frederick Seymour, secretary. The Messrs. Klipstein are members of the firm of A. Klipstein & Co., 122 Pearl street, New York, and Messrs. Brown and Seymour are of Miami.

Miami—Fish Preserving Company.—Fish & Fruit Preserving Co., recently incorporated, is arranging for the erection of building and the installation of machinery for putting up fish in packages to market.

West Palm Beach—Street Improvements.—City will vote August 23 on the issuance of bonds for street improvements. Address The Mayor.

GEORGIA.

Atlanta—Mineral Water, etc.—Chartered: Lith-Aris Company, with \$15,000 capital, and privilege of increasing to \$100,000, to deal in mineral waters and non-intoxicating drinks; incorporators, A. L. Clarkson, M. R. Wilkinson, S. J. Elder and John R. Wilkinson.

Cartersville—Development Company.—Etowah Development Co. has been incorporated, with \$100,000 capital, by W. H. Howard, Thos. Lumpkin, John S. Leake, A. O. Granger and John W. Aklin.

Columbus—Cotton Mill.—John T. Abney of Laurens, S. C., will build, as reported last week, a cotton mill at Columbus. The plant will have either 10,000 or 20,000 spindles. No details have been decided upon as yet, but the capital is assured.

Columbus—Brick, Tile and Pipe Works.—M. H. Tuggle Concrete & Hollow Block Construction Co. has been organized, with \$5000 capital, to manufacture hollow brick, sewer tile and drain pipe.

Elberton—Water-works.—City has let contract for construction of its proposed \$45,000 water-works. Address The Mayor.

Griffin—Water-works, Electric-light Plant and Sewerage System.—City has voted the \$100,000 bond issue recently mentioned for extending water and light system and constructing sewerage system. Address The Mayor.

Marietta—Knitting Mill.—Marietta Knitting Co. is reported as to build an addition to its mill; present equipment 86 knitting machines, ribbers, 22 loopers, etc.

Marietta—Mercantile.—J. R. King Dry Goods Co. has been incorporated by J. J. King of Marietta, J. J. Cogkins, George G. Roberts, Atlanta, Ga., and G. A. Wood of Cincinnati, Ohio; capital \$15,000.

Ocala—Saw-mill and Cotton Gin.—D. J. Hogan will rebuild saw-mill and cotton gin recently burned.*

Stillmore—Electric-light Plant.—W. J. Lightfoot will erect building 20x50 feet and equip as electric-light plant.*

KENTUCKY.

Glasgow—Oil Wells.—Uniontown Oil Co. has been incorporated, with \$25,000 capital, by E. L. Geers of Glasgow, I. W. Semas of Uniontown, Pa., and J. E. Clark of East Bethlehem, Pa.

Glasgow—Oil-pipe Line.—South Kentucky Oil Co. of Lexington, Ky., operating on Boyd creek, will build a pipe line from that point to Glasgow, a distance of four miles, utilizing 22,200 feet of two-inch pipe and having a capacity of 30 barrels a day. W. E. Crandall is engineer in charge.*

Lewisport—Chair Factory and Warehouse. P. Best, Jr., Manufacturing Co. is erecting two-story factory building 50x100 feet and one-story warehouse 50x100 feet; plant to have a daily capacity of 75 dozen chairs. It is also proposed to install a saw-mill. About \$12,000 will be invested. Harry Hiperts is engineer in charge.

Louisville—Publishing.—Incorporated: Converse & Co. (established), publishers of the Christian Observer, with \$100,000 capital; incorporators, F. Bartlett Converse, Frank B. Converse and Harry P. Converse.

Louisville—Printing.—Continental Printing Co. has increased capital from \$10,000 to \$15,000.

Louisville—Lumber and Stave Company.—Paul C. Barth, A. N. Struck of Louisville and W. T. Reager of Pine Barren, Fla., have incorporated the Nicholson Lumber & Stave Co. with \$20,000 capital.

Louisville—Mining.—Incorporated: Cave-in-Rock Mining Co., with \$40,000 capital, by F. S. Barlow, W. H. Netherland, Cale and Alice Hegan Rice.

Louisville—Cooperage Plant.—Hubbard Bros. have purchased site, 220x190 feet, on which to erect factory building and equip with cooperage machinery at a cost of \$10,000.

Milton—Flour Mill, Distillery, etc.—C. G. & A. R. Crawford will erect buildings 32x44 and 20x40 and equip as flour mill and brandy distillery having capacity of 50 barrels of flour and two barrels of brandy. About \$10,000 will be invested.

Mt. Sterling—Seed Plant.—Montgomery Bluegrass Seed Co. has been incorporated by J. M. Bigstaff, I. F. Tabb, M. O. Cockrell and J. M. Pickrell. Company has let contract for the erection of building, and machinery will be installed for cleaning bluegrass seed.

Oldham—Telephone System.—Oldham Telephone Co. has increased capital from \$10,000 to \$20,000 and will extend plant.

Owensboro—Drugs.—J. Q. Haynes, G. E. Mullen, A. R. Miller, L. W. Alexander and C. M. Mullen have incorporated the Mullen & Haynes Wholesale & Retail Drug Co. with \$100,000 capital.

LOUISIANA.

Franklin—Shipyard.—Teche Transportation Co. has leased 1000 feet of frontage on Bayou Teche on which to erect shipyard.

Newellton—Mercantile.—Newellton Mercantile Co., Ltd., has been incorporated with \$10,000 capital. J. R. Lynch is president; S. A. Russell, vice-president, and A. G. Henderson, secretary-treasurer.

New Orleans—Rice Mill.—Reports state that Adolph Henry Steward has purchased from the People's Savings, Trust & Banking Co. at \$100,000 the David and Crescent City Rice Mills and will form a stock company to operate the plant.

New Orleans—Rice Mill.—Empire Rice Milling Co., reported organized last week with \$60,000 capital, has let contract to J. A. Petty of Crowley, La., for the erection of mill and warehouse. Mill building will be four-story, 50x30 feet, with warehouse attached, two stories, 90x190 feet. Building will be equipped with machinery recently invented by Boland & Schwind Co., Ltd., and will have a daily capacity of 2400 barrels.

Shreveport—Cotton Mill.—J. D. Kennedy, 45 Randolph street, Memphis, Tenn., states that the report he offers to build a cotton mill in Shreveport, referred to last week, is an error.

MARYLAND.

Cumberland—Liquor Company.—Patrick W. Cavanaugh, George J. Meiser, Edward P. Lavin, Louis Reynolds of Cumberland and John M. Schwartz of Parkersburg, W. Va., have incorporated the Mountain State Liquor Co., with \$25,000 capital.

Hagerstown—Knitting Mill.—Blue Ridge Knitting Co. has erected another story on its mill building and awarded contract for 50 additional knitting machines.

Hancock—Shirt Factory.—Robert F. Shafer and William T. Hamilton of Hagerstown, Md., will organize the Hancock Shirt Co. to operate shirt factory.

Hancock—Cement Deposits.—Frank Fields

and associates are arranging for the development of cement deposits near Hancock recently purchased.

Port Deposit—Water-works Improvements. City will improve system of water-works by building large reservoir, artesian well and pump; W. B. Meetch, city engineer.

Rockville—Flour and Grist Mill.—Hickerson Bros., reported last week as to build flour and grist mill, will erect building 30x40 feet, two stories, frame with metal roof, at a cost of \$5000, and have a capacity of 50 barrels of flour per day.*

Washington, D. C.—Glass Works.—W. T. Owen of Anniston, Ala., and associates have incorporated the Standard Glass Co. with \$1,000,000 capital for the establishment of plants in different sections for the manufacture of all kinds of glass products, especially an improved lamp chimney.

Williamsport—Water-works.—Abraham Roth, representing a syndicate, has made application for franchise to install system of water-works. About \$15,000 will be expended.

MISSISSIPPI.

Bassfield.—Incorporated: McLaen-O'Connell Company, with \$50,000 capital, by D. N. McLaen, John O'Connell and others.

Bay St. Louis—Furniture and Supply Company.—Coast Furniture & Supply Co., Ltd., has been organized with John Osolnach, president; Ben F. Markey, vice-president, and George R. Rea, secretary-treasurer.

Canton—Sewerage System.—City will vote on the issuance of \$40,000 of bonds for the construction of sewerage system. Address The Mayor.

Carrollton—Water Works.—City has voted the issuance of bonds for construction of system of water-works, previously reported to be built at a cost of \$11,000. Address The Mayor.

Columbus—Cotton Mill.—The company reported last week as to be organized to establish a cotton mill will manufacture yarn and cordage. Its equipment will be 1600 spindles to start with; charter has been applied for. B. N. Love will be in charge.

Columbia—Electric-light Plant.—City has under contemplation the construction of electric-light plant; G. M. McMorrough, mayor.*

Greenville—Hardware Company.—S. R. Geise, J. A. Mann and W. P. Kretchmar have incorporated the Geise-Mann Hardware Co., with \$50,000 capital.

Greenwood—Grocery Company.—Greenwood Retail Grocery Co. has been incorporated with \$20,000 capital.

Itta Bena—Lumber Company.—Itta Bena Lumber Co. has been incorporated, with \$10,000 capital, by J. J. Alexander, S. M. Kimbrough, J. L. Haley and others.

Le Flore County—Townsite.—W. J. Cude of Kinnums, Tenn.; J. T. Edwards of Beards-town, Tenn., and Dr. R. W. Pace of Pleasantville, Tenn., owning 7000 acres of timber land in LeFlore county, between the Yazoo and Sunflower rivers, on the main line of the Southern Railway, will establish town to be known as Cude. A saw-mill will be erected for converting the timber into lumber.

New Albany—Real Estate.—N. Fitzpatrick, W. H. Ivy, T. L. Grace and others have incorporated the New Albany Lumber & Real Estate Co. with \$25,000 capital.

Port Gibson—Cannery.—Incorporated: Port Gibson Canning Co., with \$15,000 capital.

Shelby—Mercantile and Supply Company. Rex Mercantile & Supply Co. has been incorporated, with \$10,000 capital, by J. C. Coleman, J. H. Buford, J. F. Gayden and others.

Summit—Ice Factory, Bottling Works, Electric Plant and Sand-brick Plant.—J. B. Holden, J. T. Covington, J. B. Enos, C. Alcus and others contemplate establishing ice factory, bottling works, electric plant and sand-brick works.

Yazoo City—Mercantile.—Incorporated: Wilson-Neely Company, with \$10,000 capital, by Nye Wilson, E. C. Neely and others.

Yazoo City—Spoke Factory.—It is reported that Jacob Weiss of Memphis, Tenn., is investigating with a view to establishing spoke factory.

MISSOURI.

Jasper County—Mining.—Bengal Mining Co. has been incorporated, with an authorized capital of \$40,000, to mine and produce ore of all kinds; incorporators, J. C. Bily, F. A. McKenry, J. G. Evans, J. D. Warrington and associates, all of Pittsburg, Pa.

Kansas City—Portland Cement.—C. A. Brockett, H. McCutcheon and R. M. Brockett have incorporated the American Portland Cement Co. with \$10,000 capital.

Kansas City—Bridge Construction.—A

meeting of the engineers of the Missouri Pacific, Union Pacific, Rock Island, Santa Fe, Kansas City Belt, Suburban Belt and the Chicago Great Western railroads will be held in the office of Miller, Buchan & Miller, in Kansas City, Kan., on July 29 to consider a general plan of raising the Kaw river bridges to a uniform height and to make other improvements that will lessen the danger of overflow of the Kaw river. H. Rohwer is chief engineer of the Missouri Pacific, St. Louis, Mo.

Morgan County—Coal Mines.—H. C. Adams of Chicago, Ill.; C. J. White of Danville, Ill., and Edward H. Cox of Springfield, Ill., are investigating the property of the Morgan County Coal Co., with a view to forming company to operate it.

St. Louis—Publishing.—Sam Frank Taylor, M. P. Moody, St. Louis, Mo.; J. J. Taylor of Georgetown, Ky., and others have incorporated the Christian Repository Publishing Co., with \$15,000 capital, to do a general printing and publishing business.

St. Louis—Mining.—Three Metals Mining Co. has been incorporated, with \$50,000 capital, by August Gehner, Charles McL. Clarke and Benjamin Gretz.

St. Louis—Hay and Grain Company.—Geo. McGowan, F. E. W. Wilkins and Wm. M. Sutherland have incorporated the National Hay & Grain Co., with \$2100 capital.

St. Louis—Saw-mills, etc.—George Surmeyer Lumber Co. has been incorporated by George Surmeyer, A. B. Surmeyer and Henry F. Lincoln, with \$20,000 capital, to deal in lumber, operate saw-mills, etc.

St. Louis—Novelty Works.—Incorporated: Fairy Toy Works, to manufacture toys, novelties and fancy articles, by Thomas P. Tivy, Cyril L. Elmer, William N. Tivy and Eugene J. Simer; capital \$4000.

Tarkio—Agricultural Implements.—Midland Manufacturing Co. is making extensive improvements to its plant, including the erection of three buildings, 40x168, 40x100 and 40x60, respectively, and the building of addition to present plant 40x80 feet, thereby doubling the capacity.

NORTH CAROLINA.

Asheville—Cotton Mill.—D. G. Devenish, C. H. Miller, F. W. Graham, T. R. Hewitt and others will incorporate the Elk Mountain Cotton Mill Co. with capital stock of \$150,000 and establish mill for manufacturing damask, toweling, etc. A mill building has been secured and will be equipped with the necessary looms, and later on a mill for manufacturing the yarns needed will doubtless be erected. Electric-power will be used, to be supplied by the W. T. Weaver Power Co. D. G. Devenish will be general manager of the company.

Asheville—Water-power-Electric Plant.—W. T. Weaver Power Co., W. T. Weaver, president, previously reported as developing the water-power of the French Broad river and the erection of electric plant for transmitting said power, has added another 1200-horse-power generator for doubling the capacity of the plant.

Charlotte—Trousers Factory.—E. V. Finlayson Manufacturing Co. has been organized by E. V. Finlayson to manufacture trousers, with a capacity of 1000 pairs a day. Plant will be operated by electricity. Mr. Finlayson will be general manager.

Elizabeth City—Ice Plant.—Crystal Ice & Coal Co. has been organized with John S. A. Wood, president; J. B. Flora, vice-president, and S. B. Bartlett, secretary-treasurer, to consolidate two local ice-manufacturing companies.

Gastonia—Furniture Company.—Chartered: Little-Williams Furniture Co., with \$25,000 capital, by E. L. Little, J. H. Williams and C. Little.

Graham—Water-works and Electric-light Plant.—City has granted franchise to a Washington (D. C.) company to construct water-works and electric-light plant. It is stated that the company will also operate ice plant. Address The Mayor.

Mt. Ulla—Cotton Gin.—Reports state that A. G. Melchor of Mt. Ulla and Dr. George A. Brown of Bear Poplar, N. C., contemplate erecting cotton gin to cost \$3000.

Rae ford—Cotton Mill and Power Development.—J. W. McLochlin, T. B. Upchurch, W. J. Upchurch and John Blue have incorporated the Rae ford Power & Manufacturing Co., with an authorized capital of \$200,000, for the purpose of developing water-power and operating cotton mill.

Raleigh—Knitting Mill.—Martin Hosliery Mills has ordered 30 additional knitting machines for installation in its plant.

Rockwell—Furniture Factory.—Rockwell Furniture Co. will erect addition 45x75 feet.

Sanford—Machine Shop.—Moffitt Bros. have

purchased site on which to erect building for increasing their capacity.

Spencer—Real Estate.—Spencer Building Co. has been organized with an authorized capital of \$50,000.

Thomasville—Telephone System.—Thomasville Telephone Co. will make extensive improvements to plant, rebuilding the entire system.

SOUTH CAROLINA.

Batesburg—Electric-light Plant and Water-works.—City has let contract to Frederick Minshall of Abbeville, S. C., for the construction of electric-light plant and water-works, for which \$20,000 of bonds was reported voted last month. Site has been secured on Hartley hill for water-works plant, and water will be secured by means of five tubular wells 50 feet deep and two and one-half inches in diameter and stored in a 60,000 gallon capacity standpipe.

Dorchester—Agricultural Implement Works. Dorchester Agricultural Works has incorporated, with \$2000 capital, to make plows and other farming implements. W. S. Lining is president, and I. M. Williams, vice-president and secretary-treasurer.

Dillon—Cotton Mill.—Maple Cotton Mills, reported last week as to build another mill, to have 5000 spindles, will erect building 300 feet long as an annex to present structure.

Dillon—Hardware.—Browne-Westbrook Hardware Co. has increased capital to \$50,000.

Greenville—Cotton Mill.—Carolina Mills will hold a meeting August 16 to vote on a proposition to increase capital stock from \$50,000 to \$100,000.

Marion—Lumber Company.—M. C. Woods of Marion and E. W. Boucher of Bennettsville, S. C., have incorporated the Marion County Lumber Co., with \$300,000 capital.

Orangeburg—Clothing Company.—E. R. Pauling of Orangeburg and Peter C. Brunson of Charlotte, N. C., have incorporated the Brunson Clothing Co. with \$7000 capital.

Summerton—Hardware.—Summerton Hardware Co. has been incorporated with J. C. Chantman, president; C. M. Davis, vice-president, and J. A. James, secretary-treasurer; capital \$5000.

Sumter—Cotton Gin.—Incorporated: Farmers' Gin Co., with \$4000 capital. W. B. Boyle is president; J. P. Booth, vice-president, and W. A. Brown, secretary-treasurer.

Union—Laundry.—R. M. Estes contemplates establishing steam laundry.*

Warrenville—Water-works.—Warren Manufacturing Co., E. F. Verdery, president, Augusta, Ga., will establish gravity system of water-works at Warrenville, and bids are asked until August 3.*

TENNESSEE.

Bulls Gap—Flour Mill.—W. Y. Farnsworth, reported last week as to build flour mill, will erect building, 28x58 feet, and install machinery with a capacity of 50 barrels of flour and 300 bushels of meal. About \$5000 will be invested.

Bristol—Hat Manufacturing.—Chartered: Fields Watkins Company, with \$30,000 capital, to deal in and manufacture hats, caps, gloves, millinery, etc. H. W. Fields of Bristol is president; John T. Watkins of Wise, Va., vice-president, and Thad. A. Cox of Johnson City, Tenn., secretary-treasurer.

Chattanooga—Coffin and Casket Factory.—E. R. Betterton, R. C. Campbell, H. C. Abercrombie, P. J. Casey and F. B. Colts have incorporated the Tennessee Coffin & Casket Co., with \$75,000 capital, to manufacture coffins and caskets. Mr. Betterton and associates were reported last week as to establish \$25,000 manufacturing plant.

East Chattanooga—Water-works.—Chartered: East Chattanooga Water Co., with \$20,000 capital, by O. L. Lockwood, J. N. Stephens, J. C. McGehee and associates, to establish water-works and furnish Sherman Heights and East Chattanooga with water.

Gallatin—Bottling Plant.—Rutledge Grocery Co. is installing machinery for manufacturing non-alcoholic beverages.

Knoxville—Cold-storage Plant.—It is reported that W. J. Oliver and associates have purchased site at \$18,000 for the erection of \$200,000 cold-storage plant.

Knoxville—Brick Works.—Reports state that A. A. Scott and W. J. Oliver will establish brick plant, and about \$50,000 will be invested.

Knoxville—Woolen Mill.—Knoxville Woolen Mills has amended its charter, increasing capital stock from \$600,000 to \$750,000.

McKenzie—Water-works.—It is reported that a \$3000 company will be organized for the construction of water-works. The Mayor can probably give information.

Memphis—Refinery.—Goyer Alliance Refin-

ing Co. has been incorporated, with \$1,000,000 capital, by Peter McIntyre, G. E. Oatesson, J. Lankota and Henry Kraft. The Manufacturers' Record reported this company in March as to be incorporated and absorb C. W. Goyer & Co., molasses manufacturers and refiners; also to enlarge and improve plants in Memphis and Louisiana.

Memphis—Cottonseed-oil Mill.—Phoenix Cotton Oil Co., reported last month as increasing capital to \$200,000, has amended charter, further increasing capital to \$300,000.

Nashville—Rubber Type Composition.—Reports state that G. A. Pickup of Brooklyn, N. Y., has secured through the Retail Merchants' Association building which will be equipped with machinery for the manufacture of a patent composition for molding rubber type. Company will operate as Pickup & Son.

Nashville—Water-power-Electrical Plant.—It is stated that Messrs. Melkleham & Dunsmore of New York city and C. H. Ackerman of Binghamton, N. Y., have arranged for the placing of \$100,000 worth of stock and the disposal of \$4,000,000 of bonds of the Great Falls Power Co., thus insuring the construction of the proposed water-power-electrical plant. This company has previously been referred to in these columns. It is promoted by C. H. Fisk of Detroit, Mich. (This report last week under Memphis by error.)

Nashville—Sewerage.—Nashville Plumbing Co., 600 Broad street, has contracted at \$3,964.90 to construct 1550 feet of circular brick sewer; sewer to be 54, 45 and 42 inches in diameter.

Nashville—Real Estate.—Paul Roberts, W. H. Weller, J. A. McKim, O. H. Shields and J. L. Westlake have incorporated the Corner Realty Co. with \$150,000 capital.

Nashville—Lumber Company.—R. L. Blevins, J. W. Huntsman, Paul W. Fleck, Sam L. King and H. H. Shelton have incorporated the Paul W. Fleck Lumber Co. with \$5000 capital.

TEXAS.

Batson—Oil Wells.—Lauderdale Oil Co. has been incorporated, with \$10,000 capital, to prospect for oil and other minerals, by E. E. Brouch of Batson, I. H. Rush, J. M. Buchanan, Frank Heiss and associates of Meridian, Miss.

Blackland—Cotton Gin.—Rockwall Cotton Co., Rockwall, Texas, is to erect \$6000 cotton gin.

Celina—Mill and Elevator.—Celina Mill & Elevator Co. has increased capital from \$30,000 to \$50,000.

Cheapside—Telephone System.—Cuero & Cheapside Telephone Co. has been incorporated to build telephone line; incorporators, J. E. Lord, J. F. Elder and C. F. Carson.

Denison—Mattress Factory.—N. Marsico, proprietor of the Denison Mattress Factory, has purchased building, which will be remodeled and equipped with new and additional machinery for increasing capacity.

Detroit—Oil and Cotton Company.—Detroit Oil & Cotton Co. has increased capital from \$50,000 to \$65,000.

Forney—Mercantile.—Hardie Dry Goods Co. has been incorporated by A. F. Hardie; capital \$25,000.

Hillsboro—Railroad Device.—J. W. Pepple, S. L. Werden, T. Miller, B. D. Smith, Wiley M. Pain and associates have incorporated the Pepple Brake Co. with \$5000 capital to manufacture and sell a patent brake for railroad cars and engines.

Houston—Oil Wells.—Big Hill Oil & Fuel Co. has been incorporated, with \$96,000 capital, to prospect for oil and other minerals, by Lewis Emery, Jr., L. E. Hamsler, C. P. Collins and associates.

Itasca—Cotton Gin.—E. E. Griffith, J. W. Harper and James Lawless have incorporated the Farmers' Gin Co., with \$5000 capital.

Lewisville—Lumber Company.—Incorporated: Lewisville Lumber Co., with \$5000 capital, by T. P. Cowan, William Cowan, J. W. Degan and A. G. Willis.

Llano—Gold Mining.—Bawskeda Mining Co., reported incorporated last month with \$25,000 capital by F. W. Blackburn of Beaumont, Texas; J. F. Ware of Milwaukee, Wis.; Ella Adams of Chicago, Ill., and associates, has purchased 200 acres of gold-mining property near Llano at \$20,000, and will at once arrange for its development.

Lloyd—Cotton Gin and Grist Mill.—A. M. Bush, A. T. Bates, J. T. Robertson and others have incorporated the Lloyd Gin & Mill Co. with \$4000 capital, to operate gins, mills, etc.

Marshall—Sewerage-disposal Plant.—Severance, Eppel & Hayes of Shreveport, La., have contract at \$12,700.90 for the construction of a septic disposal plant for sewer system.

Mountcain—Mercantile.—Robert T. Mor-

gan, S. J. Callaway, J. G. Gould of Mountcain, M. Holderman of Waco, Texas, and M. A. Ferguson of West, Texas, have incorporated the Mountcain Mercantile Co. with \$10,000 capital.

Paris—Livery Company.—James C. Smith, George M. Minton and A. J. Ward have incorporated the Palace Livery Co., with \$5000 capital.

Port Lavaca—Rice Mill.—Clark Rice and Irrigation Farms contemplates establishing rice mill.

San Angelo—Laundry.—Hugh Jackson of San Angelo, W. F. and H. Casey of Georgetown, Texas, have incorporated the San Angelo Laundry Co., with \$9000 capital, to conduct a steam laundry.

Sour Lake—Saw-mill.—Reports state that M. M. Carpenter of Beaumont, Texas, contemplates establishing saw-mill at Brasier with a daily capacity of 5000 feet of lumber.

South Bosque—Oil Company.—South Bosque Oil Co. has increased capital from \$100,000 to \$150,000.

Van Horn—Mercantile.—J. G. Lowdon, Jr., E. C. Lowdon and R. R. Lowdon have incorporated the Lowdon Mercantile Co., with \$50,000 capital.

Waco—Dam Construction.—G. C. Patton of Houston, Texas, has contract at \$14,000 for the construction of proposed dam across the Brazos river.

Wharton—Water-works.—City has purchased at \$5400 the water-works plant of Otto Klein, which it will operate. Address The Mayor.

Wichita Falls—Pipe Line Company.—Incorporated: Oil City Pipe Line Co., with \$10,000 capital, to prospect for oil and other minerals; incorporators, G. W. Wigham, W. C. Brown, J. F. Reed, J. C. Hunt and T. C. Thatcher.

VIRGINIA.

Alexandria—Telephone System.—Central Mutual Telephone Co. has incorporated with an authorized capital of \$5000. William M. Wheeler is president; B. F. A. Myers, secretary, and A. Conner, treasurer.

Augusta County—Mineral Lands.—Anthony Gaer, Alexander S. Clark, F. A. Stier, all of Washington, D. C., and associates, operating as the National Steel & Manganese Co., have purchased 8000 acres of mineral land in Augusta county at \$50,000.

Claremont—Heading Factory.—Virginia Heading Co. is erecting heading factory, building to have corrugated-iron roof and sides.*

Esmont—Flour Mill.—Lane Bros. and associates are interested in the erection of a 100-barrel steam flour mill. J. A. Bradley can give information.*

Irrington.—Incorporated: Finlay & Co. with an authorized capital of \$20,000. John Finlay is president.

Lawrenceville—Steam Laundry.—Local parties contemplates establishing a steam laundry. For information address P. O. Box 152, Lawrenceville, Va.*

Martinsville—Tobacco Factory.—D. H. Spencer & Sons will erect five-story addition, 75x150 feet, to their factory.

Newbern—Mercantile and Manufacturing.—Incorporated: Newbern Mercantile & Manufacturing Co. with an authorized capital of \$50,000; R. C. Boathe, president; C. B. Anderson, secretary, and S. W. Cecil, treasurer.

Norfolk—Electric-light Plant.—People's Light, Heat & Power Co. is being organized with \$100,000 capital, and will apply for franchise to erect electric-light and power plant.

Norfolk—Street Paving.—City Council has approved the appropriation of \$18,312.50, previously reported as recommended by the Finance Committee, for paving Granby street extended; George G. Riddick, mayor.

Orange—Grocery.—Orange Grocery Co. has been incorporated with L. Willis, Jr., president, and C. L. Stovin, secretary-treasurer; capital \$25,000 to \$100,000.

Portsmouth—Water-works Improvement.—Portsmouth, Berkley & Suffolk Water Co. contemplates expending \$125,000 in the erection of another pumping station and the laying of additional mains in Portsmouth and Berkley.

Richmond—Machine Shops.—C. B. Ford contemplates establishing machine shop.*

Roanoke—Iron Furnaces.—Virginia Iron, Coal & Coke Co. will expend about \$250,000 in improvements to its plant, including the relining and repairing of furnaces, refining of all stoves, building new trestle and the installation of new boilers, blowing engines, etc.

Tazewell—Street Improvements.—Town has voted affirmatively the \$15,000 bond issue previously reported for improving sidewalks, and contract has been awarded; G. L. Byrne, engineer in charge.

Whitestone—Pickling Plant.—Frederick W. Schlipper, 440-442 Elbow lane, Baltimore, Md., is erecting pickling plant. Main building is 103x64 feet, and 20 pickling tanks each with a capacity of 40 barrels, will be installed. Machinery has been ordered.

WEST VIRGINIA.

Jane Lew—Carbon and Lampblack.—Raven Carbon Co. has incorporated, with an authorized capital of \$150,000, to deal in carbon and lampblack; incorporators, Edwin Binney, C. P. Wiley of New York, N. Y.; F. F. Kurtz of Erie, Pa.; James H. McDade and H. W. Severly of Kane, Pa.

MacDonald—Coal Mining.—Chartered: New River & New England Coal Co., with an authorized capital of \$2,000,000, to own and operate mines in Fayette county; incorporators, Sam Dixon, J. W. Smiley, Fred Dixon of MacDonald, S. L. Walker and J. W. St. Clair of Fayetteville, W. Va.

Moundsville—Electric-light Plant.—Moundsville Electric Light Co. has let contract to William Donley for the construction of its proposed electric plant; building to be 60x115 feet, and cost \$4000.

Seebert—Bobbin and Spool Factory.—G. E. Patrick will equip a plant for manufacturing cotton bobbins, spools, quills, etc., from maple lumber. The machinery has not been purchased.*

Shirley—Natural Gas Pipe Line.—Shirley Pipe Line & Gas Co. has been incorporated, with an authorized capital of \$10,000, to lay pipelines and furnish natural gas; incorporators, Ralph Sweeney, Francis Pfister, S. F. Reed and M. J. Reed.

Wellsburg—Oil and Gas Wells.—Pfister Oil & Gas Co. has been incorporated, with an authorized capital of \$25,000, by Francis Pfister, S. George, G. Strong, W. F. Barth and Joseph Pfister.

Wheeling—Roofing and Cornice Company.—Wheeling Roofing & Cornice Co. will increase capital from \$200,000 to \$1,000,000; office, 1521 Chapline street.

Wheeling—Coal Mines and Coke Ovens.—John N. Birch, George R. E. Gilchrist of Wheeling, A. A. Thompson, W. M. Thompson of Uniontown, Pa., and associates have incorporated the Wheeling-Chicago Coal & Coke Co., with an authorized capital of \$1,000,000, to mine coal and manufacture coke.

INDIAN TERRITORY.

Hartshorne—Development Company.—Pounds Coal Mining & Development Co. has been organized for the development of 5000 acres of land as townsite to be known as Colburton. Engineer Kendrick of the new railroad being built from Salisaw, I. T., to Greenville, Texas, with offices in Hartshorne, is one of the promoters.

Wilburton—Electric-light Plant.—City has let contract to James Degman for the construction of its proposed \$50,000 electric-light plant.

OKLAHOMA TERRITORY.

El Reno—Grain Company.—Chartered: Frisco Grain Co., with \$25,000 capital, by Charles Cox of Augusta, O. T.; Ed Gagnebin and A. S. Cox of Carmen, O. T.

Enid—Coal Mines, etc.—William H. Gregory, Bruce L. Cosner, James R. Dunworth and associates have incorporated the 98th Meridian Coal, Oil & Gas Co., with \$150,000 capital.

Guthrie—Stock-car Company.—Gilleland Ideal Vestibule Stock Car Co. of Guthrie and Wichita, Kan., has incorporated with \$80,000 capital; incorporators, A. H. Herringhouse and E. F. McElidowney of Guthrie, Edgar B. Gilleland, G. L. Edwards and E. Markle of Wichita, Kan.

Guthrie—Packing Company.—The Colonial Packing Co. of Guthrie and San Francisco, Cal., has been incorporated, with \$100,000 capital, by G. V. Pattison of Guthrie, J. Alexander and A. H. Manning of San Francisco, Cal.

Guthrie—Grocery.—C. V. Pattison of Guthrie, J. Alexander and A. H. Manning of San Francisco, Cal., have incorporated the C. O. D. Grocery Co. of Guthrie and San Francisco, Cal., with \$100,000 capital.

Oklahoma City—Water-works Improvements.—City contemplates extending system of water-works at a cost of \$185,000. Address The Mayor.

Temple—Oil and Gas Wells.—Incorporated: Red River Oil & Gas Co., with \$15,000 capital, by D. D. Jones, K. J. Bass, A. A. Reeves, W. L. Swisher and others.

Tryon—Telephone System.—Lincoln County Rural Telephone Co. has been incorporated, with \$5000 capital, by T. D. Rush, J. N. Smith and A. G. Walters.

Wildman—Mining and Milling.—A. J., W. T. and E. C. Meers have incorporated the Waco Mining & Milling Co. with \$1,000,000 capital.

BURNED.

Ardmore, I. T.—Henry M. Furman's residence; loss \$8000.
 Cordell, O. T.—Frisco Hotel; loss \$5000.
 Decatur, Ala.—Scruggs & Echols' warehouse; loss \$35,000.
 Greenville, Texas.—Texas Refining Co.'s plant, including three-story brick building and machinery, loss \$13,000, and Ironclad Soap factory building; loss \$500, machinery \$3500, engines and pumps \$500.
 Jacksonville, Fla.—Mellor Manufacturing Co.'s camphor factory.
 Okeene, O. T.—East Side Mills, owned by Wolz & Sons; loss \$10,000.
 Pearsall, Texas.—James Powell's, B. F. Stewart's and Casey & Kinnard's blacksmith shops; loss \$1500.
 Petersburg, Va.—T. F. Heath & Co.'s grain warehouse and Nelson Morris & Co.'s building; total loss \$50,000.
 Wheeling, W. Va.—Lorain Coal & Coke Co.'s electric-power plant; loss \$25,000.

BUILDING NOTES.

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

Ackerman, Miss.—School Building.—City will issue \$12,000 of bonds for the erection of school building previously reported. Address The Mayor.

Amarillo, Texas.—Courthouse and Jail.—Plans, specifications and sealed bids will be received by the Commissioners' Court of Potter county, Texas, until August 15, to be filed with the County Court Clerk, for a stone and brick courthouse and jail, built separately. Courthouse not to exceed \$40,000; jail not to exceed \$10,000. Certified check for \$1500, payable to Lon D. Marrs, county judge, must accompany each bid. Usual rights reserved.

Austin, Texas.—Church.—First Congregational Church is erecting \$15,000 stone edifice. Dr. R. J. Briggs is pastor.

Baton Rouge, La.—Hotel Improvements.—Alex. Grouchy, Jr., will remodel and enlarge the Grouchy Hotel, recently damaged by fire.

Berkley, Va.—Masonic Temple.—John W. Jones of South Norfolk, Va., has contract to erect proposed Masonic temple; structure to be three stories, 50x60 feet, of brick and stone, and cost \$14,000.

Birmingham, Ala.—Building.—Mrs. James Weiss will erect two-story frame building to cost \$7000.

Blakely, Ga.—Courthouse.—Morgan & Dillon, Atlanta, Ga., have contract to erect Early county's proposed \$40,000 courthouse.

Boone, N. C.—Courthouse.—Watauga county has let contract to L. W. Cooper of Charlotte, N. C., for the erection of its proposed \$20,000 courthouse.

Caddo, I. T.—School Building.—City has voted the proposed issuance of \$15,000 of bonds for the erection of school building. Address The Mayor.

Charles County, Md.—Dwelling.—Robert Crain, Maryland Telephone Building, Baltimore, Md., is having plans prepared by Thos. E. Kennedy, 331 North Charles street, Baltimore, Md., for the erection of three-story residence, 40x70 feet.

Charlotte, N. C.—Flats Building.—George E. Wilson is having plans prepared by Wheeler & Runge for the erection of flats building 93x15 feet.

Charlottesville, Va.—Depot.—Chesapeake & Ohio Railway has let contract to J. T. Wilson, Richmond, Va., to erect \$30,000 depot 30x122 feet, reported last week.

Columbia, S. C.—Hospital Additions.—Shand & LaFaye are preparing plans for the erection of \$15,000 addition to Columbia Hospital, previously reported. Geo. W. Waring has contract to erect proposed operating building, after plans by C. C. Wilson; cost \$5000.

Corinth, Miss.—Church.—Methodist Church will receive bids until August 1 for proposed improvements to church property, amounting to about \$800; plans and specifications with Rev. J. H. Felts, pastor.

Corinth, Miss.—Hotel.—Waldron Hotel Co. has been incorporated, with \$16,000 capital, by W. P. Dibbins, M. T. Bynum, R. M. Weaver and others.

Dallas, Texas.—Apartment-House.—Majestic Apartment Building Co., reported incorporated last week to erect \$150,000 apartment-house, has let contract to M. H. Peterman, Dallas, Texas; structure to be six-story, 167x100 feet. E. H. Silven prepared the plans.

Danbury, N. C.—Courthouse.—L. W. Cooper, Charlotte, N. C., has contract to erect

Stokes county's proposed \$30,000 courthouse.

El Paso, Texas.—Auditorium.—Southwestern Irrigation Association has let contract for the erection of auditorium with a seating capacity of 3000.

El Paso, Texas.—Depot.—El Paso Union Passenger Depot Co., reported last month as having plans prepared by D. H. Burnham & Co. of Chicago, Ill., for union passenger station, will erect building at a cost of \$280,000. Main structure will be two stories, 143.3x103.3 feet, having a one-story wing 61.1 feet wide, extending back 247 feet parallel to the tracks. The foundations and first two stories are to be of concrete, and the wing and tower of pressed brick. Building will have all the latest improvements of a modern passenger station, heated by steam and lighted by electricity.

Flintonia, Texas.—School.—City will vote August 16 on the issuance of \$10,000 of bonds for the erection of school building. Address The Mayor.

Gainesville, Fla.—Church.—H. W. Hawkins, Jacksonville, Fla., is preparing plans for proposed edifice for the Episcopal Church.

Gaithersburg, Md.—School Building.—Alfred C. Warthen has contract at \$8400 for building proposed high school.

Hazlehurst, Miss.—Bank and Office Building.—Bank of Hazlehurst has let contract to Westbrook & Humphries, Jackson, Miss., for \$18,000 brick bank and office building, previously reported to be erected.

Henderson, Tenn.—Jail.—Chester county will let contract August 1 for the erection of jail building, previously reported; J. M. Stewart, county clerk.

Hopkinsville, Ky.—Laundry Building.—Dr. Milton Board, superintendent of the Western Kentucky Asylum for Insane, will re-

Allison for the erection of its proposed \$30,000 edifice.

Lafayette, La.—Bank Building.—First National Bank has had plans prepared by Favrot & Livaudais, New Orleans, La., for the erection of bank building 37x70 feet, and cost \$25,000.

Lenox, Tenn.—School Building.—City will vote on the issuance of \$10,000 bonds for the erection of school building. Address The Mayor.

Lexington, Ky.—Warehouse.—F. R. Toe-water, local manager of the Continental Tobacco Co. of New York, has forwarded plans to the New York office for proposed \$75,000 warehouse. If plans are accepted warehouse will be erected at once.

Liberty, Miss.—Jail.—Amite county has had plans prepared by F. B. & W. S. Hull of Jackson, Miss., for the erection of its proposed \$12,000 jail building.

Little Rock, Ark.—Church.—Immanuel Baptist Church contemplates erecting \$35,000 edifice; W. E. Berthe, chairman building committee, and J. U. H. Wharton, pastor.

Macon, Ga.—Church.—Presbyterian congregation has purchased site at Culver street and Vineville avenue on which to erect chapel. Address N. B. Corbin.

Macon, Ga.—Auditorium.—City will erect \$25,000 brick and stone auditorium with a seating capacity of 2500; Alexander Proudfoot, chairman Building Committee.

Martinsville, Va.—School Building.—A. S. Gravelly, clerk of council, Martinsville, Va., will receive sealed bids until August 20 for the construction of public school building in accordance with drawings and specifications, copies of which can be seen in the office of clerk. Certified check for \$100 must accompany each bid. Usual rights reserved.

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Baltimore, Md., May 31, 1904.

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Yours truly,

C. A. WASHBURN,

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ceive sealed bids until August 10 for the erection of laundry building. Plans and specifications at office of Kenneth McDonald and J. F. Shebley, architects, Louisville, Ky., and at the office of the superintendent; usual rights reserved.

Houston, Texas.—Temple.—Congregation Adath Yeshurun has let contract to C. C. Wenzel for the erection of proposed temple. Structure to be two stories high, 58x55 feet, of brick and stone with slate roof, after plans by F. S. Glover.

Houston, Texas.—Warehouse.—F. W. Heitmann Company will erect \$10,000 warehouse of concrete, 130x300 feet.

Houston, Texas.—Theater.—Houston Theater Co., reported incorporated last week, is having plans prepared by Cooke & Co. for the erection of building 100x150 feet, to be equipped with steam heat, electric elevator, etc.; capital \$150,000.

Huntington, W. Va.—Residence.—H. G. Bowles, Adelphi Building, has let contract for the erection of \$5000 residence. R. L. Day prepared the plans.

Jellico, Tenn.—Store and Warehouse.—H. T. Hackney Company has purchased site on which to erect two-story store building 45x25 feet, and two-story warehouse 50x100 feet.*

Jellico, Tenn.—Building.—Jellico Hardware Co. has purchased site on which to erect four-story brick building, 90x25 feet, to cost \$20,000. Ben C. Morton, Knoxville, Tenn., is architect in charge.*

Knoxville, Tenn.—Asylum Annex.—Frank Claiborn, and not Frank Bearden, as reported last week, has contract to build annex to the East Tennessee Insane Asylum at Lyons View.

Knoxville, Tenn.—Church.—Centenary Methodist Church has let contract to J. W.

McDonoghville, La.—Church.—A. Rouprieh has contract at \$7028 for the erection of proposed edifice for Catholic Church, after plans by Diboll & Owen of New Orleans; building to be of frame, 90x40 feet; slate roof, pressed-steel ceiling, etc.

Minden, La.—Courthouse.—W. G. Stewart, president of the Board of Police Jurors, will receive sealed bids until September 8 for the erection of courthouse at Minden, in accordance with plans and specifications on file in the office of Parish Clerk, Minden, La., and also in office of Andrew J. Bryan, architect, 905-907 Hennen Building, New Orleans, La. Plans can also be secured from architect by depositing a certified check for \$50. All bids must be made out on proposal sheet prepared by architect and accompanied by a certified check for \$500. Police Jury reserves usual rights.

Nashville, Tenn.—Dwelling.—Thompson, Gibel & Asmus are preparing plans for the \$10,000 residence reported last week to be erected by G. M. Ingram.

Nashville, Tenn.—Church.—Russell Street Cumberland Presbyterian Church has had plans prepared for the erection of \$25,000 edifice of brick and stone, with slate roof. Address The Pastor.

Nashville, Tenn.—Dwelling.—George Mitchell will erect one-story brick residence to cost \$5000.

Newbern, N. C.—Lodge Building.—Newbern Lodge 764, B. P. O. E., has purchased site on which to erect four-story lodge building 100x71 feet, to cost \$50,000. H. W. Simpson is architect at present. Tom O. Daniels is secretary.

New Orleans, La.—Dwelling.—Mrs. G. P. Rainey will erect two-story frame residence to cost \$11,000.

New Orleans, La.—School Building.—Frank

J. Noullet is lowest bidder at \$40,997.15 for erecting proposed building for McDonough School No. 31.

New Orleans, La.—Store Buildings.—Dr. G. K. Pratt has had plans prepared by Favrot & Livaudais for the erection of proposed store buildings.

Oklahoma City, O. T.—Building.—W. T. Hales will erect three-story brick building 50x140 feet.

Oklahoma City, O. T.—Dormitory.—Executive committee of Epworth University contemplates erecting \$15,000 brick dormitory.

Orange, Va.—Store Building.—Orange Grocery Co. will erect store building 50x100 feet; two-story.

Petersburg, Va.—College Additions.—Arthur Kyle Davis, president of the Southern Female College, has purchased buildings adjoining college building which will be remodeled to be used as part of college.

Raleigh, N. C.—College Improvements.—M. A. Moser has contract to erect proposed addition to main building at the Baptist Female University, and not Cary J. Hunter, as previously reported.

Rusk, Texas.—School Building.—J. P. McDonald & Co., Austin, Texas, have contract to erect school building, for which \$14,000 of bonds was reported voted last week. Structure to be 70x160 feet, fireproof, steam heat, and cost \$13,500. C. H. Page, Austin, Texas, prepared the plans.

Sherman, Texas.—Church.—G. P. Webb, chairman building committee, will open bids August 8 for furnishing all material and erecting edifice for the Central Christian Church. Plans and specifications on file at office of R. R. Dulin, Sherman, and at office of J. F. Flanders, architect, Dallas, Texas. Usual rights reserved.

Taylor, Texas.—City Hall.—S. F. Evens, chairman building committee, Taylor, Texas, will open bids August 2 for constructing \$20,000 brick and stone City Hall building. Plans and specifications may be examined at office of Henry Struve, architect, Taylor. Certified check for \$1000 must accompany each bid.

Valdosta, Ga.—Store Building.—Jeff Darling of Waycross, Ga., will erect four-story brick building 26x90 feet, to cost \$10,000, for the Valdosta Mercantile Co.

Water Valley, Miss.—Home Building.—Directors of the Mississippi Methodist Orphans' Home will erect \$20,000 brick building to replace structure recently burned at a loss of \$18,000. Rev. W. S. Shipman is manager.

Waco, Texas.—Hospital Addition.—Sisters of St. Vincent De Paul will erect three-story \$20,000 addition to the Providence Sanitarium, which is now being erected at a cost of \$75,000.

Washington, D. C.—Engine-house.—Arrangements are being made for the erection of engine-house, for which \$23,000 has been appropriated by Congress. Address Chester Harding, assistant to engineer commissioner.

West Point, Miss.—Lodge and Office Building.—Knights and Ladies of Honor have purchased site on which to erect five-story office and lodge building of pressed brick, plate-glass front, steam heat, electric lights, and cost \$10,000. Plans from architects are now being invited. Address J. R. Brinker.

Wheeling, W. Va.—Business Building.—Z. C. Patten is having plans prepared for the erection of three-story brick building.

Yazoo City, Miss.—Store Building.—D. W. Wellerstein will erect two brick store buildings, two-story, 25x100 feet.

RAILROAD CONSTRUCTION.

Railways.

Amarillo, Texas.—Engineers are reported at work on the survey for the proposed Amarillo & Lubbock Railway, in which E. C. Gordon and others are interested.

Bainbridge, Ga.—Mr. W. M. Legg, general manager of the Georgia, Florida & Alabama Railroad, is quoted as saying that the company proposes to build from Cuthbert, Ga., north to Columbus, Ga., 58 miles, and also to extend the Carrabelle, Tallahassee & Georgia Railroad from Hinson, Fla., to Quincy, Fla.

Bainbridge, Ga.—An officer of the Georgia, Florida & Alabama Railway writes the Manufacturers' Record that plans for the projected extensions from Cuthbert to Columbus, Ga., and from Hinson to Quincy, Fla., have not been matured.

Belton, Texas.—The charter of the Belton & Temple Traction Co. has been amended by increasing the capital from \$250,000 to \$300,000 to provide for the extension from Belton westward to Dunn's Canyon, about 1.7 miles. Tracklaying is reported begun on the main line at Temple.

Belzoni, Miss.—The Yazoo & Mississippi Valley Railroad will, it is reported, put in

operation immediately the Belzoni & Yazoo City branch, 25 miles long, lately completed.

Birmingham, Ala.—Reported that Erskine Ramsey and G. B. McCormack of Birmingham are interested in a new coal land owning company in Walker county, 10 miles northwest of Jasper, and that a branch railroad two or three miles long will be built to the property.

Brownwood, Texas.—A large part of the bonus is reported raised for a railroad from Brownwood to Rising Star, about 31 miles.

Bunkie, La.—Dr. W. D. Haas, president of the Louisiana East & West Railway, is reported as saying that the first five miles of the line from Bunkie to Eola will be completed early in the fall. It will connect at the latter point with the Southern Pacific and the Texas & Pacific. Afterwards 35 miles more will be built to a point near Hesser, on the Red river, and Ville Platte, in St. Landry parish.

Burnsville, N. C.—Construction work is reported to have begun on an electric railway nine miles long, to extend from Boonford to Burnsville, connecting at the former point with the South & Western Railway. Chicago capitalists are said to be building the line, taking power from the plant of the National Graphite Co. on Toe river, two miles from Boonford. The line may be extended 38 miles to Asheville.

Chattanooga, Tenn.—The Chattanooga Belt Railway, it is reported, will be extended along Broad street to 7th street. William E. Wiggins is superintendent.

Chicago, Ill.—Concerning the report that the Atchison, Topeka & Santa Fe Railway will extend from Canyon City to Plainview, Texas, Chief Engineer James Dun informs the Manufacturers' Record that no surveys have been made there and nothing is known of any plan to build.

Chicago, Ill.—T. P. Hamm, president of the Bay Minette & Fort Morgan Railway, is reported as saying that the line has been financed and surveys are nearly complete. Grading contracts are to be let immediately. It being proposed to complete 45 miles from Bay Minette, Ala., to a point opposite Magnolia Springs, Ala., by December 31; entire line 62 miles long from Bay Minette to Fort Morgan.

Conway, S. C.—Reported that surveys will begin about August 1 for the extension of the Conway Seashore Railroad to Marion and that grading will follow as soon as practicable. F. A. Burroughs is president. The line is now 15 miles long, from Conway to Myrtle Beach. It is said that the proposed line from Sumter to Southport, N. C., will be 150 miles long.

Dalhousie, Texas.—The Oklahoma, Texas & New Mexico Railroad Co. has been incorporated, with \$10,000,000 capital, to build a line from Woodward, O. T., via Dalhart to El Paso, Texas, about 540 miles. The officers are: President, J. H. Conlen; vice-president, L. P. Raymond; general counsel, D. B. Hill; secretary, R. T. Pugh; treasurer, C. H. Young; general manager, W. C. Edwards; superintendent transportation, M. S. Connors; general superintendent, R. L. Brown; chief engineer, F. J. Ward; roadmaster east division, W. J. Lacy; roadmaster west division, W. L. Finn; master mechanic, Thos. C. Sunderland; general car foreman, E. L. Cress; general freight and passenger agent, J. E. Steel; general baggage agent, Newton Childers; superintendent telegraph, D. C. Diltz, all of Dalhart, Texas.

Denison, Texas.—R. L. McWille of Denison has, it is reported, completed the survey for the proposed Oklahoma City, Lexington & Sulphur Springs Electric Railway between Oklahoma City, O. T., Lexington and Sulphur Springs, I. T., about 80 miles. Jay Sherman of Lexington is president, and Geo. A. Teague of the same place is secretary.

Enid, O. T.—The Denver, Enid & Gulf Railway is reported to be pushing grading on its projected extension northwest from Enid to connect with the Union Pacific. E. L. Peckham is general manager.

Fort Smith, Ark.—The Arkansas Anthracite Railway Co. of Fort Smith has been incorporated to build a line from Fort Smith to Clarksville, Ark., with a spur on the Little Spadra, 66 miles. The directors are W. J. Echols, C. E. Speer, E. B. Miller, James F. Read, Charles E. Stokes, W. H. Robins, Fort Smith; W. H. H. Shibley, Van Buren. The company will use about 25 miles of old grade between Clarksville and Fort Smith. The route is from Fort Smith via Moore's Rock, Van Buren and Alma to Clarksville. Construction, it is expected, will begin very soon.

Fort Smith, Ark.—F. A. Molitor, chief engineer of the Midland Valley Railroad, is reported as stating that the extension from Bokoshe to Muskogee, I. T., about 70 miles,

is now in service, and that grading is in progress between Muskogee and Tulsa, I. T., 55 miles, this extension going via Haskell and Red Fork.

Hartshorne, I. T.—Chief Engineer Kendrick of the proposed railroad from Salsaw, in the Cherokee Nation, to Greenville, Texas, is reported to have completed plans for the line, which will be about 100 miles long and will run via McCurtain, Wilburton, Hartshorne, Bonham and Wolfe City.

Houston, Texas.—J. H. Kirby of Houston and others are reported to be working on a plan to extend the Frisco system from Paris to Beaumont, Texas, by building links to connect several roads which may be acquired.

Houston, Va.—Senator W. P. Barksdale and W. D. Hill are reported to have arranged for building the proposed electric railway between South Boston and Houston, Va., five miles.

Kansas City, Mo.—Mr. J. G. Trimble, general attorney of the Quincy, Omaha & Kansas City Railroad, writes the Manufacturers' Record that the Adair County Railroad Co. will build a line about five miles long from Youngstown, on the Iowa & St. Louis Railway, northwest up Billy's creek to four coal mines. E. M. Collins of Kansas City is engineer in charge. The construction contract is let, and grading is in progress. The company does not expect to own any equipment.

Kansas City, Mo.—The Interstate Railway Co. is reported to have awarded a contract for 400 miles of line from Kansas City north to Minnesota, the purpose being to build a large electric railway. The Consolidated Trust Co. is reported organized, and will, it is said, finance the enterprise; president, Edward C. Sterger, Uvalde, Texas; vice-president, G. M. D. Grigsby, Dallas, Texas; second vice-president, C. M. Atkinson, Kansas City, Mo.

Kansas City, Mo.—William Kenefick of Kansas City is reported to have purchased the interest of C. N. Haskell, promoter and president of the Muskogee Union Railway, now being constructed from Muskogee to Wagoner, I. T., via Muskogee to Whitesboro, Texas, 225 miles, of which 50 miles from Wagoner southwest is complete. General Manager Peyinghaus is reported as saying that the work will be rushed to completion. An effort is being made by citizens of Tishomingo to have the line run via that place.

Knoxville, Tenn.—Walton & Wilson are reported to have received contract to build a two-mile line for the Knoxville, Laffollette & Jellico Railroad from Jellico to Lot, Ky. J. E. Willoughby is chief engineer.

Louisville, Ky.—It is reported that surveyors are at work on a proposed extension of the Birmingham, Selma & New Orleans division of the Louisville & Nashville Railroad between Myrtlewood, Ala., the present terminus of the road, and the Tombigbee river. R. Montfort is chief engineer.

Louisville, Ky.—Chief Engineer R. Montfort of the Louisville & Nashville writes the Manufacturers' Record that he knows nothing about the surveying party reported at work running a line to the New River coal fields in Anderson, Campbell, Scott and Morgan counties, Tennessee.

Madisonville, Tenn.—Reported that J. H. Peyton, chief engineer, will let contracts within the next two or three weeks for the reconstruction of the Atlanta, Knoxville & Northern Railroad between Knoxville and Wetmore, Tenn., including the building of 19 miles of new line, in accordance with the survey.

Meridian, Miss.—The charter of the Meridian Terminal Co. has been approved. The incorporators are C. C. Harvey of the Queen & Crescent Route, E. L. Russell of the Mobile & Ohio Railroad, O. L. McKay and Mr. McCurren of Meridian.

Monroe, La.—Mr. H. D. Appgar, secretary of the Monroe Progressive League, writes the Manufacturers' Record that as yet there has been no definite plan made or name selected for the proposed railroad to Lake Providence via Morehouse to Bastrop and south to Island De Saïr to connect the Little Rock & Monroe Railroad. Another meeting of the interested parties is to be held in Monroe within the next 10 days or two weeks. Some Northern capitalists have become interested in the enterprise.

Mt. Airy, N. C.—Reported that the survey has been completed by S. A. White for an extension of the Mt. Airy & Eastern Railway to Stuarts, Va., 10 miles. S. A. White is superintendent.

Nashville, Tenn.—Mr. J. H. Connor, general manager of the Nashville & Columbia Electric Railway and the Nashville & Gallatin Electric Railway, writes the Manufacturers' Record that two surveying corps are now at work and the first two divisions,

north and south, will be put under construction as soon as final location is made. The company is now ready to take bids for all machinery. He also corrects the press report that \$2500 bond was given. The amount was \$25,000 for each road. W. Dunbar Miller of Pittsburg is engineer; H. M. Gross is president; office, 21 and 22 Steger Building.

New Orleans, La.—Gen. F. F. Myles is reported as saying that capital has been secured and franchise granted for the proposed Bayou Teche Electric Railway from New Iberia to Berwick, La., about 40 miles.

Norfolk, Va.—The Bay Shore Terminal Co. has been ordered to extend its tracks at Ocean View. The receivers are H. L. Page, J. A. C. Groner and B. W. Leigh.

Palestine, Texas.—Reported that the International & Great Northern Railroad Co. is considering plans to build an extension into Ennis, Texas. J. D. Trammell is chief engineer.

Portsmouth, Va.—The Seaboard Air Line Railway will, it is reported, lay heavier rails between Durham and Henderson, N. C. W. W. Gwathmey, Jr., is chief engineer.

Salisbury, Md.—The Wicomico Electric Power Co. has organized. It proposes to build a street railway in Salisbury and a road to connect Bivalve, Quantico and Helbron, all in Wicomico county. The officers and incorporators are Thomas Perry, president; Charles R. Disharoon, vice-president; W. S. Gordy, Jr., secretary; H. L. Brewington, treasurer; W. J. Staton, James T. Truitt, E. A. Toadvine, M. A. Humphreys, J. D. Price, Dr. Samuel L. Graham of Salisbury; Isaac S. Bennett of Riverton, Robert F. Walter and J. W. P. Insley of Bivalve; finance committee, Thomas Perry, W. S. Gordy, Jr., W. J. Staton, Marion A. Humphreys and Dr. Samuel A. Graham.

Spartanburg, S. C.—Ladshaw & Ladshaw, engineers, of Spartanburg, have, it is reported, made a survey for the proposed railroad of the Cliffside Mills, four miles long, at Cliffside, N. C. The estimate for construction is \$3750 a mile.

St. Joseph, Mo.—The St. Joseph, Albany & Des Moines Railroad Co. of St. Joseph is reported incorporated to build a standard-gauge line 80 miles long from St. Joseph, Mo., to Des Moines, Iowa.

St. Louis, Mo.—The Missouri Pacific Railway, it is reported, will build an extension from Joplin, Mo., to Muskogee, I. T. H. Rohrer is chief engineer.

Timpson, Texas.—Reported that the Timpson Northwestern Railroad will immediately begin grading on an extension. W. G. Ragley is president.

Tulsa, I. T.—In a letter to the Manufacturers' Record Clifton George, president of the First National Bank of Tulsa, I. T., writes that the Kansas City, Tulsa & Southwestern will be built from the Missouri Pacific southwest through Tulsa, I. T., and Oklahoma into Texas. The line will be about 250 miles long. A permanent survey is being made, and W. H. Hendron is engineer in charge.

Tyler, Texas.—The St. Louis Southwestern Railway is reported to be building a large yard at Ilmo, Mo., two miles west of the Thebes Bridge. M. L. Lynch is chief engineer.

Washington, D. C.—The Southern Railway Co. will, it is reported, build a short connecting line just south of Richmond to facilitate the operation of trains around that city. W. H. Wells is engineer of construction.

Wheeling, W. Va.—John A. Howard of Wheeling and M. F. Bonzano of New York are reported working on a plan to build the proposed Wheeling, Waynesburg & Eastern Railroad and the terminal line in Wheeling, all to make a connection between Wheeling and the coke regions.

Woodville, Miss.—Dr. Will H. Woods writes the Manufacturers' Record concerning the proposed Fort Adams, Woodville & Centerville Electric Railroad, capital \$500,000. He says that the line is to be 34 miles long from Fort Adams, on the Mississippi river, where connection is made with the Red River Valley and the Texas & Pacific lines, to Centerville, Miss., on the Mississippi Valley Railroad. At Woodville it will touch a branch of the latter system. Those interested are L. T. Ventress, Chas. Cohen, Jas. M. Sessions, W. L. Ferguson, A. M. Shepherd, C. M. Stricker, M. P. Scott, R. M. McGhee and Dr. W. H. Woods. Mr. Ventress was made temporary chairman, and Dr. Woods, secretary.

Street Railways.

Birmingham, Ala.—The town of Ensley has granted a franchise to the Birmingham Railway, Light & Power Co. to extend its Tuxedo line to Sherman Heights.

Chattanooga, Tenn.—H. M. Littell, manager of the Chattanooga Rapid Transit Co., is reported as saying that the company has under consideration a plan to extend its line in the western part of the city and up Cameron Hill.

Fort Worth, Texas.—President Sam Rosen of the Fort Worth & Rosen Heights Street Railway Co. is reported as saying he has awarded the contract for overhead work to C. C. Dixon.

Hot Springs, Ark.—The street-railway company is extending its line to the Oaklawn race-track, and a double track is completed for about half the distance.

Nashville, Tenn.—The Nashville Street Railway Co., it is reported, will extend a number of its lines, one of them on the Murfreesboro turnpike to the Tennessee Industrial School.

Owensboro, Ky.—The Owensboro Street Railway has been purchased by James H. Parrish, John G. Delker of Owensboro, Yewell Rice of Louisville and A. S. Wilson of Pinkneyville, Ill. Reported that the line will be extended several miles to the Bon Harbor coal regions.

Pascagoula, Miss.—It is reported that the Pascagoula Street Railway Co. will build an extension to East End, on Pascagoula bay.

San Antonio, Texas.—The San Antonio Traction Co. will, it is reported, lay heavier rails on its tracks, which are about 27 miles long.

MACHINERY, PROPOSALS AND SUPPLIES WANTED.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery that is wanted.

Bakery Equipment.—J. C. Mims, 825 Gravier street, New Orleans, La., wants bids on machinery and equipment for the manufacture of breakfast food; plant to have a capacity of 5000 pounds a day as a minimum.

Basket Machinery.—Knoxville Basket Co., P. O. Box 135, Knoxville, Tenn., wants catalogues and prices on basket machinery.

Boiler.—See "Electric-light Plant."

Boilers.—See "Engines and Boilers."

Bridge Construction.—Realty Improvement Co., S. A. Moore, vice-president, Philippi, W. Va., wants estimates on the construction of bridge across the Tygart's Valley river at Philippi.

Building Equipment and Supplies.—Henderson & Co., Ltd., builders, 218 West Fayette street, Baltimore, Md., want subbids on building materials for Dr. Barrie's building, 30 Hanover street, Baltimore, Md., on which they are bidding—brick, stone, iron and steel work, metal work, roofing, mill work, fire-escape, prismatic glass, metal frames and sashes, plumbing, electric elevator, plastering, painting, glazing. Plans and specifications for the building can also be seen at their Philadelphia (Pa.) offices, 1221 Arch street.

Building Equipment and Supplies.—See "Fire-escapes."

Building Equipment and Supplies.—Hickerson Bros., Rockville, Md., are in the market for about 12,000 square feet framing, 5000 square feet German siding, 6500 square feet 4-4 flooring, 5500 square feet sheathing.

Building Material.—Jellico Hardware Co., Jellico, Tenn., wants prices on building material.

Building Material.—H. T. Hackney Company, Jellico, Tenn., wants prices on building material.

Building Materials.—Maginnis & Reimers, Lake Charles, La., want prices on building materials, hoisting equipment, etc.

Cannery Equipment.—Wm. Hanson, Bradenton, Fla., wants to purchase complete equipment for canning factory, principally for guava jelly and marmalade.

Conveying Machinery.—W. C. Newman & Bro., Elberton, Va., wants information concerning pneumatic grain-handling machinery for handling grain from sidetrack to mill, a distance of 3000 feet.

Cotton Mill Machinery.—Frank S. DeRonde Company, 46 Cliff street, New York, N. Y., wants addresses of manufacturers of card clothing.

Creamery Equipment.—Lahoma Creamery Co., Lahoma, O. T., wants prices on complete equipment for creamery.

Crushers.—See "Crushing Equipment."

Crushing Equipment.—C. L. Morris, Millledgeville, Ga., wants to correspond with parties who grind such substances as kaolin and fuller's earth.

Dam Construction.—T. O. Jones, chairman electric-light committee, Harrisonburg, Va., will receive sealed proposals until August 11 for constructing a 15-foot dam, with foundations, race-ways and wheel-pits, on the Shenandoah river. Specifications and forms of contract sent on application, and plans are on file with N. Wilson Davis, engineer, Harrisonburg. Certified check for \$500, made payable to O. B. Roler, mayor, must accompany each bid. Town reserves usual rights.

Decorticating Machinery.—George W. L. Weaver, 1609 Carondelet street, New Orleans, La., wants information regarding fiber-extracting machinery.

Drainage Pumping Plant.—See "Pumping Plant."

Dredging Machine.—Goddin Supply Co., Inc., 318 West Marshall street, Richmond, Va., is in the market for a small dredging machine; second-hand preferred.

Dynamo.—See "Electric-light Plant."

Dynamos.—See "Electric-light Plant."

Electrical Equipment.—See "Railway Equipment."

Electrical Equipment.—Maginnis & Reimers, Lake Charles, La., want prices on electrical equipment.

Electric-light Plant.—Kissimmee Electric-light Plant, Kissimmee, Fla., wants a 90-kilowatt dynamo and 120-horse-power engine.

Electric-light Plant.—W. J. Lightfoot, Stillmore, Ga., wants prices on electrical material, generators, etc.

Electric-light Plant.—See "Water-works."

Electric-light Plant.—Walter Weaver, president Progressive Union, Columbus, Miss., wants addresses of dealers in second-hand electric-lighting machinery, dynamos, etc.

Electric-light Plant.—Ira E. Farmer, mayor, Thomson, Ga., will receive sealed bids until August 22 for labor and all material necessary to complete a system of electric lights. Plant to consist of one brick powerhouse, one 66-inch by 16-foot high-pressure boiler, heater and feed pump; one 135-horse-power engine; one 90-kilowatt alternator and station apparatus; six arc lamps, 35-50 candle-power series incandescent lamps; 800-lights capacity in transformers, wire, pile, lines, etc. Certified check for 5 per cent. of bid, payable to the Mayor, must accompany each bid; plans and specifications on file with W. R. Hadley, city clerk, Thomson.

Electric-light Plant.—G. H. McMorrough, mayor, Columbia, Miss., wants prices on machinery, etc., for electric-light plant.

Electric-power Plant.—Hickerson Bros., Rockville, Md., want proposals on electric-power plant for operating flour and grist mill. (See "Steam-power Plant.")

Elevators.—H. T. Hackney Company, Jellico, Tenn., wants prices on elevators.

Engine.—See "Electric-light Plant."

Engine.—See "Electric-light Plant."

Engine.—W. H. Gollehon, Ceres, Va., is in the market for new or second-hand two-horse-power engine.

Engine.—John M. Motz, Lincoln, N. C., wants 20-horse-power second-hand automatic engine.

Engine.—Houston & Liggett, Lewisburg, Tenn., are in the market for new or second-hand 12x14 engine to be used at Gilbert, Ark.

Engines.—Montgomery Bluegrass Seed Co., Mt. Sterling, Ky., wants prices on engines for power purposes.

Engines and Boilers.—Maginnis & Reimers, Lake Charles, La., want prices on engines and boilers.

Exhaust Equipment.—Philadelphia Veneer & Lumber Co., Knoxville, Tenn., wants a 35 or 40-inch planing-mill exhaust.

Exhaust System.—Bellamy Planing Mill Company, Florence, Ala., wants prices on blow-piping.

Fencing.—Bailey Lumber & Manufacturing Co., Union, S. C., is in the market for all kinds of barn and fencing wire and wire nails in car lots.

Fertilizer Machinery.—Kilpatrick Rendering Co., 217 North 21st street, Birmingham, Ala., wants to correspond with manufacturers of fertilizer machinery.

Fiber-working Machinery.—Frank S. De-

Ronde Company, 46 Cliff street, New York, N. Y., wants addresses of manufacturers of machinery for cutting the outside fiber of rope after it has been twisted.

Filter Plant.—Home Water Supply Co., Spartanburg, S. C., wants prices on a filtering plant of about 2,000,000 gallons per day capacity.

Fire-escapes.—J. Lee Hale, Chattanooga, Tenn., wants prices on fire-escapes.

Flour-mill Equipment.—J. A. Bradley, Esomont, Va., is in the market for complete equipment for 100-barrel steam flour mill.

Furniture.—See "School Equipment."

Generators.—See "Electric-light Plant."

Heating and Ventilating.—Dr. Milton Board, superintendent of the Western Kentucky Asylum for the Insane, Hopkinsville, Ky., will open bids August 10 for the erection of chimney, boiler-house and boilers and heating and ventilating apparatus; work to be let separately for each of the three items. Certified check for 5 per cent. of amount of bid must accompany each proposal. Plans and specifications can be seen at the superintendent's office or at the office of Kenneth McDonald and J. F. Shebley, Louisville, Ky.; usual rights reserved.

Heating Apparatus.—Maginnis & Reimers, Lake Charles, La., want prices on steam-heating apparatus for four-story hotel building of 110 rooms.

Hoisting Equipment.—See "Building Materials."

Hydraulic Power Press.—See "Power Press."

Ice Plant.—P. B. Moore, Bennettsville, S. C., wants prices on 6 to 12-ton ice-making plant complete.

Ice Plant.—A. J. Patterson, Greenville, Tenn., wants to buy a new or second-hand 10-ton ice plant.

Iron Barrels.—Burruss Engineering Co., Atlanta, Ga., wants 100 or more iron barrels holding about 50 gallons each, such as are used for shipping kerosene oil.

Laundry Equipment.—E. M. Estes, Union, S. C., wants prices on machinery and equipment for steam laundry.

Laundry Equipment.—P. O. Box 153, Lawrenceville, Va., wants to correspond with manufacturers of machinery and equipment for steam laundry for town of 1500 inhabitants.

Levee Work.—Board of Commissioners of the Bossier Levee District, Bossier City, La., will open bids August 4 for constructing 700,000 cubic yards of levee work. Information as to location, character of work, terms of payment and blank forms for proposals may be obtained at the office of W. B. McCormick, president of board, at Shreveport, La., and at the office of the Board of State Engineers at New Orleans, La.

Machine Tools.—See "Metal-working Machinery."

Machine Tools.—C. B. Ford, Richmond, Va., wants prices on one planer 48x48 inches by 16 feet, four heads preferred; one planer 30x30 inches by 10 feet, at least two heads; one wheel lathe 66 inches or 72 inches, with quartering attachment; one lathe 40 inches by 12 feet; one Jones & Lamson flat turret lathe; 24 inches by 10 feet; one lathe 18 inches by 8 feet; one Jones & Lamson flat-turret lathe; one 24-inch Blaisdell or equal drill press; one 48-inch Bickford or equal radial drill; one shaper, 16-inch, Gould and Eberhardt, or equal; one 24-inch double-wheel dry grinder; one 18-inch single-wheel wet grinder; second-hand, in good condition.

Metal-working Machinery.—Thornhill Wagon Co., Lynchburg, Va., wants second-hand cold shears.

Mill Supplies.—Jellico Hardware Co., Jellico, Tenn., wants prices on mill supplies.

Nails.—See "Fencing."

Nickel Platers.—E. M. Lewis, Moundsville, W. Va., wants to correspond with parties who engage in nickel-plating for manufacturers.

Paint.—E. D. Williamson, Cerro Gordo, N. C., is in the market for fireproof paint.

Pipings.—John G. Duncan Company, 316 Jackson avenue, Knoxville, Tenn., is in the market for one and one-quarter miles of 8 and 10-inch spiral pipe, and wants addresses of manufacturers.

Power Press.—Hyman Supply Co., Newbern, N. C., wants price on 100-ton hydraulic car-wheel press.

Pump.—Philadelphia Veneer & Lumber Co., Knoxville, Tenn., wants an approved underwriter's fire pump 14x7x12.

Pump.—See "Electric-light Plant."

Pump.—South Kentucky Oil Co., Lexington, Ky., is in the market for a pump to force oil through 22,200 feet of two-inch pipe.

Rope Machinery.—See "Fiber-working Machinery."

Pumping Plant.—Arthur Lipper, city secretary, Houston, Texas, will open bids August 1 for furnishing and installing one centrifugal pump and electric motor, complete, with all necessary floats, chains, wiring connections, starters, cut-outs, switchboard, piping, valves, etc., necessary to the perfect and economical handling of the drainage of the Preston avenue tunnel, according to sketch and specifications on file in the city engineer's office. Certified check for \$100, payable to A. L. Jackson, mayor, must accompany each bid. City reserves usual rights.

Railway Equipment.—Italian Blue Gem Coal Co., Newcomb, Tenn., is in the market for second-hand standard-gauge locomotive, about 35 tons weight.

Railway Equipment.—Harper Machinery Co., Park Row Building, New York, is in the market for 15 miles of 60-pound relaying rails.

Railway Equipment.—Walter A. Zelnicker Supply Co., St. Louis, Mo., wants a small standard-gauge 10-wheeler or mogul engine; must be in good condition and weigh less than 35 tons.

Railway Equipment.—Nashville & Columbia Electric Railway and Nashville & Gallatin Electric Railway, J. K. Connor, general manager, Nashville, Tenn., is ready to take bids for all kinds of machinery and equipment necessary in the construction of electric railway.

Railway Equipment.—Harper Machinery Co., Park Row Building, New York, is in the market for 30 flat cars 30,000 to 50,000 pounds capacity, with automatic couplers, to be used for steam shovel work and unloaded with a plow; one center-ballast plow, one steam shovel with one-and-one-half to two-yard dipper, and 50 to 60 tons of five or six-inch high T relaying rails and plates.

Railway Equipment.—"Lumber," care of Manufacturers' Record, is in the market for one 30 to 35-ton saddle-tank standard-gauge locomotive and one 8 to 10-ton saddle-tank standard-gauge locomotive; locomotives to have steam brakes and be in first-class condition. If coal-burner, state what would cost to change to wood-burning. Would also consider geared engines equivalent to above sizes. Send prices, specifications and locations.

Roofing.—See "Slate."

Roofing.—Virginia Heading Co., Claremont, Va., wants addresses of dealers in corrugated iron for roofing and siding.

Saw-mill.—D. J. Hogan, Ocilla, Ga., wants prices on saw-mill complete.

School Equipment.—Building committee, Dawson, Ga., will open bids August 2 for equipping school building throughout with one-seat antique oak desks. Bidders can secure blueprints of floor plans and work from T. W. Smith, Columbus, Ga.

Sheet-metal Workers.—E. M. Lewis, Moundsville, W. Va., wants to correspond with manufacturers making a specialty of sheet metal, such as tin, brass, zinc, etc.

Slate.—J. Lee Hale, Chattanooga, Tenn., wants prices on blackboard slate and roofing slate.

Spool and Bobbin Machinery.—G. E. Patrick, Seebert, W. Va., wants machinery for manufacturing cotton spools, bobbins, quills, etc., from maple wood. He also wants information regarding disposal of product.

Steam-power Plant.—Hickerson Bros., Rockville, Md., want proposals on steam-power plant for operating flour and grist mill. (See "Electric-power Plant.")

Steamships.—George W. L. Weaver, 1609 Carondelet street, New Orleans, La., wants prices on steel-hull steamers capable of carrying from 150 to 200 tons freight, not to draw more than five and one-half feet, and able to make short trips on the Gulf.

Steam Shovel.—See "Railway Equipment."

Steam Shovel.—Wood & Co., Marquette Building, Chicago, Ill., want 14 to 20-ton traction shovel, good condition, immediate delivery.

Theater Equipment.—J. W. Taylor, owner Corinth Opera-House, Corinth, Miss., wants bids on full set of stock scenery.

Water-works.—City of Springfield, Tenn., will let contract August 10 for the construction of water-works and electric-light plant. Granbury Jackson, Nashville, Tenn., is engineer in charge.

Water-works.—Warren Manufacturing Co., E. F. Verdery, president, Augusta, Ga., will open bids August 3 for furnishing all material and labor and constructing a water-works plant at Warrenville, S. C. There will be required approximately 3384 feet eight-inch pipe, 11,836 feet six-inch pipe, 3000 feet

four-inch pipe, 1970 feet two-inch pipe, 13 hydrants, 16 valves, reservoirs, etc. Plans and specifications can be seen at office of Nisbet Wingfield, C. E., Augusta, Ga., or at office of company; usual rights reserved.

Well Drilling.—Commissioners' Court of McLennan county will open bids August 1 for drilling an artesian well on the courthouse grounds, Waco, Texas, to be not less than six nor more than eight inches in diameter; usual rights reserved.

Well-drilling Contract.—Mayor of Tallulah, La., jointly with the president of the police jury of Madison parish, Louisiana, will open bids July 29 for boring an artesian or deep well in Tallulah. Detail specifications will be furnished upon application to the Mayor or Paul Freeman, engineer, Hazelhurst, Miss. Certified check for \$100, payable to the city treasurer, must accompany each bid. Usual rights reserved.

Wire.—See "Fencing."

Woodworking Machinery.—Philadelphia Veneer & Lumber Co., Knoxville, Tenn., wants one single-drum sander, either 24, 30 or 36 inches wide.

Woodworking Machinery.—See "Spool and Bobbin Machinery."

Woodworking Machinery.—See "Basket Machinery."

Woodworking Machinery.—Bellamy Planing Mill Co., Florence, Ala., wants prices on woodworking machinery, principally sanders.

MEXICO.

Concentrating Plant.—It is reported the Bautista Mining Co. of Ayutla, Jalisco, is preparing to build its proposed concentrating plant.

Electric-light Plant.—Porfirio Erres Camarenas of Guadalajara, Jalisco, contemplates building electric-light plant to furnish current for 1000 lamps.

Gold and Silver Mines.—J. T. Jackson, representing the Valenciana Mining Co., Guadalajara, Jalisco, has applied for title to gold and silver bearing lands which it is proposed to develop.

Gold Mines.—Carlos H. Dennen of Guanaquato, Guan., has filed claims to title for lands containing gold and silver veins, which he proposes to develop.

Lumber Plants.—A. W. Lillenthal and Gregorio Osuna of Saltillo, Coahuila, have purchased a controlling interest in the Imperial Mexican Lumber Co. of Monterey, New Leon, and will extend the operations of the company. It has large mills and railway, which will be extended.

Mining.—The Compania Minera Estrellas Negras will be organized with John Schramm, president, to develop mines at Troya, Chl. Gold and silver properties have been purchased.

Mining Plant.—G. A. Case of Santa Rosa, Sonora, will organize a \$500,000 company, composed of London (England) capitalists, to develop mining claims in the State of Sonora. A mill will be erected.

Mining Plant.—The Yaqui Copper Co., Campo Santo Nino, Sonora, with offices also on Broadway, New York city, has received plans and specifications for the erection of a smelting plant to have capacity of 2000 tons; also has in preparation plans and specifications for hydraulic plant to operate smelter, drilling machines, etc.

Mining Plant.—J. J. Mann of Philadelphia, Pa., has purchased mining lands near Etzelan, Jalisco, and will develop same.

Paper-box Factory.—Jose Cabrera's paper-box factory on Degollado street, City of Mexico, was destroyed by fire last week at a loss of \$30,000.

Power Plant.—Francisco Massillon, representing the La Sociedad Hombres Mexicanos, Canton de Jalapa, Vera Cruz, has received franchise to use 400 liters of water per second from the Fundiclonos river for power purposes.

Power Plant.—Andres Lefebvre, president of the Compania Bancaria Catolica de Mexico, City of Mexico, has received franchise to use 3000 liters of water per second from Lagos river for power purposes.

Reduction Plant.—The Gutierrez Mining Co., La Barranca, Sonora, will install a plant to reduce ores by the Russell lixiviation system.

Salt Refinery.—R. E. Parraga of the City of Mexico and 56 Pine street, New York city, is registered at the Gillow Hotel, City of Mexico, and announces that he has acquired valuable salt deposits which will be developed, and that a refinery will be built near Salina Cruz.

Silver Mines.—Augustin L. Gomez, representing the San Pedro-Analco Mining Co., Tequila, Jalisco, has applied for title to

silver-bearing lands which it is proposed to develop.

Smelter.—The plan for the proposed new smelter to be built in Oaxaca is maturing. Address T. J. Ryder, care Waters-Pierce Oil Co., Mexico City.

Smelting Plant.—Alfredo M. Campanella of Aguas Calientes, A. C., is endeavoring to interest capitalists in the formation of a \$1,000,000 company to build smelting plant in the State of Jalisco, probably at Guadalajara.

Stamp Mill.—The Ajuchitlan Mining Co. has begun the construction of a 50-ton stamp mill at its gold mines near Ajuchitlan, Queretaro. Bert Petersen of Parral, Chl., is president of the company.

Stamp Mill.—The Balsas Valley Mining Co., Mina Grande, San Nicolas del Oro, Guerrero, contemplates erecting 60 to 100-stamp mill.

Sugar Mill.—The Mexican Plantation Co., 3d and Main streets, Lacrosse, Wis., will build a complete modern sugar mill on its plantation on the isthmus of Tehuantepec.

Water-works Improvements.—The City of Guadalajara, Jalisco, has awarded contract to the Mexico Mine & Smelter Supply Co. for furnishing 350 tons of cast-iron pipe to be used in doubling the city's water supply.

Railways.

Electric Railway.—Reported that W. H. Wilkinson and E. T. Barnett of Baltimore and Boston and E. P. Shw, also of Massachusetts, are interested in a plan to build an electric railway from Guadalajara and Aguas Calientes, 219 kilometers.

Electric Railway.—The Aguas Calientes Electric Railroad Co. will extend its lines to

Santa Maria, three miles. Address general manager of the company at Aguas Calientes, Mexico.

Steam Railroad.—The Mexican Sulphur Mining Co., in the State of San Luis Potosi, is reported to be making arrangements to build a railroad to connect with the Mexican Central at Cerritos or El Gato.

Steam Railroad.—The Mexican Coal & Coke Co. is reported pushing work on its extension of its railroad from Esperanzas to Musquis, graders being 10 miles out, with one mile of track laid. The line is now six miles long from Baroteran, on the Mexican International, to Esperanzas.

Steam Railroad.—Reported that the Imperial Mexican Lumber Co. will build a narrow-gauge line seven kilometers long, for handling lumber for its mill, which is 24 miles north of Monterey. A. W. Lillendahl, president of the Coahuila & Pacific Railroad, and Gregorio Osuna of Saltillo, Mexico, are reported interested.

Steam Railroad.—The track of the Vera Cruz & Pacific Railway is reported very much damaged south of El Hule for the distance of about 100 miles. Reconstruction will not be attempted until about the end of August. Bridges and culverts will have to be built and track relaid. On that part of the road traffic is now suspended. R. B. Pegram is president and general manager at Orizaba, Vera Cruz, Mexico. He is reported as saying that no track has been washed away, and that the bridges and culverts are all right, but that the embankments have been softened by the rain. It is proposed to grade the road sufficiently high to avoid damage by water in the future.

tion to the forge shop; the other is to be 50x60 feet, and is an addition to the wood-working shop. The Davenport Locomotive Works is located at Davenport, Iowa.

Savannah Locomotive Works' Contracts.

It is of general trade interest to note that the Savannah Locomotive Works & Supply Co. of Savannah, Ga., has just completed repairs on a locomotive for the Penn Lumber Co. of Sumter, S. C., and a locomotive for the Babcock Bros. Lumber Co., Babcock, Ga. The company has received orders from the Southern Railway to overhaul two of its large locomotives; from Wadley & Mount Vernon Railway, to overhaul one of its locomotives, and from Jacksonville (Fla.) Terminal Co., to overhaul another one of its locomotives. The Savannah Company says it has sufficient work to keep the plant running full time for the next three months.

The Allied Arts Club.

A number of gentlemen who are interested in the rebuilding of the burnt district of Baltimore have recently organized the Allied Arts Club. Membership is eligible to those who are directly interested in the designing and construction of buildings or who represent those firms which manufacture the various articles used in construction and equipment. The club aims to provide a place where all these allied interest may meet on a social basis. It has leased the building at 65 St. Paul street, furnished it, and all the leading magazines, particularly those relating to the interests of the members, will be on file. Billiard rooms and a cafe have also been provided. There are now over 80 members enrolled. Warfield Ward is president; H. L. Underwood, vice-president, and A. L. Forrest, secretary.

Ordered Acme Knitting Machines.

Steady progress is reported in the knitting industry throughout the country, as evidenced by the establishment of new mills and the enlargement of old plants. The Mayo Knitting Machine & Needle Co. of Franklin Falls, N. H., has received many of the contracts for new equipment calling for Acme and Hemphill knitting machines. The company has sold 50 Acme knitters to Blue Ridge Knitting Co., Hagerstown, Md.; 40 Acme knitters to Sheppard Hosiery Co., Pittston, Pa., and various quantities of both Acme and Hemphill knitting machines to A. R. Kreider & Bro., Annville, Pa.; Garvin Knitting Co., Philadelphia, Pa.; Delaware Hosiery Co., Wilmington, Del.; W. A. Eastman, Lowell, Mass.; Penfield (Ga.) Hosiery Mills, Rome (Ga.) Hosiery Mills, Richmond Hosiery Mills, Rossville, Ga., and to other plants throughout the South.

European Trip of Mr. Warden.

W. F. Warden, president and general manager of the Burt Manufacturing Co. of Akron, Ohio, has returned from an extended business and pleasure trip to England, France, Germany, Switzerland, Norway, Sweden, Italy and Spain, calling upon the regular agencies of his company and establishing new ones. He reports that he has formed many new and desirable connections in addition to looking after the stock of the old agencies. Cross Oil Filters are known in every country under the sun where lubricating oil is known. While in England Mr. Warden personally sold one of the large size Cross Oil Filters to Bryant & May, the English representatives of the Diamond Match Co., and in London secured an order from his British agents for 150 oil filters and exhaust heads, which is claimed to be the largest single order for goods of this kind ever given.

Wm. Bayley Co. Succeeds Rogers Iron Co.

Last month the stockholders of the Rogers Iron Co. of Springfield, Ohio, changed the name of their company to the William Bayley Company, engineers. The change does not in any way affect the management, the capital stock being held as heretofore. William Bayley, the president, has for some years been the head of the institution, and during that time has originated many mechanical contrivances that have improved the product and increased the output, and, consequently, reduced the cost of manufacture. Mr. Bayley's sons have grown up with the business, and in late years have taken prominent parts in its management. Bayley product will continue to be up to the standard made by the old company. It includes stairways, window-guards, prismatic sidewalk tile, entrance ways, jail and station-house cages, fire-escapes, bridge railings, steel structural work for buildings, fencing, etc.

Chilled Car Wheels for the South

Among representative manufacturing establishments catering to the especial indus-

trial needs of the South is the Sanford-Day Iron Works of Knoxville, Tenn. A few words in reference to this enterprise will interest. The company has recently effected a consolidation with A. Whitney & Sons of Philadelphia, makers of car wheels since 1847, whose product has earned a reputation for quality that has become known throughout this country and abroad. The consolidation will afford the South an opportunity to obtain the best grade of chilled car wheels at the minimum price for high-grade work, and save freight charges from the North. The Whitney wheels are made of any style, weight or diameter, and the quality is repeated again and again by means of chemical analyses and exact cupola practice, which the Whitney works long ago perfected. The Sanford-Day Iron Works will at first make only small wheels, mining and industrial, and logging wheels up to 24 inches diameter, but later will make traction wheels and do repair work on wheels up to 36 inches diameter. The company repeatedly sells Whitney wheels under guarantee to do 25 per cent. more work than any other wheel of cast iron that can be compared with it. It announces that it is giving especial attention to perfect lubrication of its wheels and has many superior self-oiling patterns ready for buyers. Besides car wheels, the company offers all kinds of special castings, chilled and otherwise; also mine cars, trucks, ore, lumber and dump cars, mining machinery, crusher dies, sand rolls, etc. A. W. Whitney is the metallurgist of the company, and James S. Whitney is in charge of the Philadelphia office in the Betz Building. Buyers will find it greatly to their advantage to write the company for information and prices when in the market.

Mixing for Reinforced Concrete Work.

In connection with the rebuilding of Baltimore's burnt district, a visit to the scenes of activity often brings to one's attention improved ways and means of constructing buildings. One of the new means was seen last week being used in the erection of James L. Kernan's \$400,000 hotel at Howard and Franklin streets. This building is to be seven stories high, with basement, entirely constructed of reinforced concrete, including floors, stairways, elevator shaft, columns, beams, etc., the only portion not of concrete construction being the curtain walls, which do not carry any of the building's weight. As reinforced concrete will therefore be relied on to carry the entire weight of the hotel structure and its contents, it is of the greatest importance, as is always the case in this class of work, that the concrete should be composed of the best possible materials and that they should be mixed together in the most thorough and expeditious manner. After some investigation the engineers in charge of the construction work adopted a machine-mixer as being best adapted to give perfect results. The mixer selected has a capacity of a quarter of a cubic yard, and with its aid the concrete is turned over 30 times in two minutes, whereas by hand it was turned only six times in 10 minutes. Moreover, this size machine showed its capability of turning out the concrete as fast as the concrete workers need it for construction. An important feature of the machine is the fact that the concrete is always in sight, thus enabling the contractor to judge to a nicety the amount of water required in the mixing. It may be of interest to engineers, architects, contractors and others connected with the building industry and with construction work to know that the machine noticed at work is the Campbell Concrete Mixer, which is manufactured by the Clyde Iron Works of Duluth, Minn.

TRADE LITERATURE.

In Blowing and Ventilating Service.

A leaflet now being distributed gives details regarding the Northern Motors in blowing and ventilating service, operating blowers and fans. Address the Northern Electrical Manufacturing Co. of Madison, Wis., for copies of leaflet.

A Fuel-Saving Engine.

Manufacturers and other operators who make use of power are invited to write the Haberkorn Engine Co. of Fort Wayne, Ind., for booklet regarding that company's engine. It is a fuel-saver, and a mailing card calling attention to this fact is now being distributed.

American Locomotive Co. at St. Louis

Among the many representative American manufacturers exhibiting their products at St. Louis is the American Locomotive Co. of 25 Broad street, New York. This company exhibits 12 locomotives, which, in general and in detail, represent the present tendencies of American design, and which include two

INDUSTRIAL NEWS OF INTEREST

Cable Sam Buys More Paroid Roofing

Messrs. F. W. Bird & Son, East Walpole, Mass., manufacturers of Paroid roofing, are now shipping 2000 squares of Paroid for the United States government for work in the Philippines.

H. C. Spaulding of Triumph Electric Company.

The Triumph Electric Co. of Cincinnati, Ohio, manufacturer of electric power and lighting apparatus, announces the appointment of H. C. Spaulding as assistant sales manager of the company.

Timber Land for Sale.

Investors looking for timber lands or manufacturers seeking similar properties are advised to address S. Sampson Carson, Ripley, Tenn. Mr. Carson offers for sale 1500 acres of timber (oak, poplar, hickory, gum and pine) within a mile of new railroad in Mississippi.

Knitting Machines for the South.

In order to meet the demand for knitting machines in the South, due to the continued establishment of new mills, the American Knitting Machine Co. of 167 Oxford street, Philadelphia, Pa., has established a branch office. The office is in charge of R. M. Oates, Hendersonville, N. C.

Atlanta Office for Franklin Boilers.

In order to take better care of the Southern trade, a branch office of the Franklin Boiler Works Co. of Troy, N. Y., will be established at Atlanta, Ga. The company has secured offices at 825 Empire Building, and the representative there will give prompt attention to inquiries in his territory. The Franklin Company manufactures the Franklin Water-Tube Boiler, also tanks, stacks, etc.

Modernizing Engineers.

Dodge & Day, modernizing engineers, Philadelphia, Pa., have just completed the installation of the 340-horse-power Buckeye vertical cross-compound engine, direct connected to two G. E. 100-kilowatt continuous-current compound wound generators, for the Link-Belt Engineering Co. They are also at work on a three-motor electrically-operated locomotive crane for this company, to handle beams, angle irons and other heavy structural material for use in their new storage yard.

Climax Manufacturing Co. Incorporated.

For many years the Climax Manufacturing Co. of Corry, Pa., has been well known in the industrial world because of its manufacture of tramway logging cars and locomotives, drilling and pumping engines, double-cylinder high-speed engines, etc. It is therefore of general interest to note that the company has been incorporated under the laws of Pennsylvania, and as a partnership,

and is not an ordinary incorporated company. The officers are: President, L. W. Olds; vice-president, C. W. Battles; secretary, W. C. Kibler, and treasurer, C. F. Webster. This is practically the same management as when Mr. Battles was operating as sole owner. Capital paid in is \$300,000.

Cotton Mill for Sale.

Notice is being given those interested that the Memphis Cotton Mills Co. property at Memphis, Tenn., is offered for sale. The plant includes complete equipment of textile machinery, buildings, lands, powerhouse, operatives' cottages, 400-horse-power Corliss engine, boilers, etc. Whatever portion of the property is not disposed of at private sale by September 29 will be offered at public outcry on that date. For full information address Louis Erb, president of the company.

Manufacturing Site and Buildings.

Manufacturers or investors looking for an eligible manufacturing site and buildings in the South are advised that an opportunity presents itself for their consideration. The opportunity is seen in the fact that the site and buildings of the Lithgow Manufacturing Company at Louisville, Ky., are offered for sale. The lot is 204x525 feet, and the buildings are substantial structures of brick, one, two and three stories high. They can be readily adapted for almost any manufacturing use. A public sale will be held August 9. For information address Fidelity Trust Co., 216 5th street, or S. S. Meddis Company, West Jefferson street, Louisville, Ky.

A New Inverse Time-Limit Relay.

The inverse time-limit relay is a recent addition to the line of electrical appliances designed for general use, and marks a distinct advance in the protection of line apparatus from the effect of overloads. As its name suggests, the time element is an inverse proportion to the amount of current required to operate it. In other words, the greater the need for its action the quicker it responds, and this feature marks the difference between the inverse time-limit relay and the time-limit relays which preceded it and are more widely known. This new relay is manufactured by the Westinghouse Electric & Manufacturing Co. of Pittsburgh, Pa.

Davenport Locomotive Works Enlarging.

The demand for the light locomotives built by the Davenport Locomotive Works has been large, and increased steadily during the past six months; in fact, the company finds it necessary to enlarge its manufacturing plant in order to meet the improving conditions, and has awarded contracts for the erection of additional buildings which will be equipped with the latest improved machinery for bettering its facilities. One structure will be 60x120 feet in size, and is an addi-

pioneer engines—one a four-cylinder compound-balanced locomotive for high-speed passenger service, the other a four-cylinder articulated locomotive for the heaviest freight service. An illustrated pamphlet concerning the American exhibit has been issued. It first calls attention to important details and then illustrates the several locomotives and gives essential data concerning them. The facts presented will be of much interest to buyers of locomotives of all kinds.

New Rabbeth Bobbin Clutch.

Textile manufacturers will be interested in the leaflet issued relative to the new Rabbeth centrifugal bobbin clutch for spinning-frame spindles. This improvement has attracted much attention from operators of cotton mills. For leaflet containing description address the Draper Company, Hopedale, Mass.

Jeffrey Water Elevators.

Special Price-list No. 62 B of the Jeffrey Manufacturing Co. of Columbus, Ohio, tells about the company's make of water elevators, which have become widely used and the demand for which increases steadily as their merits become better known to users. The device is of the simplest character and easy to operate, requiring but little power. Send for booklet.

Second-Hand Machine Tools.

Buyers who happen to be in the market for machine tools and can make use of second-hand equipment are invited to send to the well-known Garvin Machine Co., Spring and Varick streets, New York, for copy of booklet listing second-hand machine tools. This company is one of the best makers of machine tools, and frequently receives other makes in exchange which it disposes of at low figures.

Monarch Attrition Mill.

A leaflet issued by Messrs. Sprout, Waldron & Co. of Muncy, Pa., calls attention to the Monarch Attrition Mill and Oilcake Crusher. This machine embodies simplicity of construction, strength, durability and efficiency, and requires minimum power for maximum capacity. One man can open a Monarch for inspection in three minutes and change the grinding plate without assistance. Write for leaflet giving full details.

Marsh Tank and Vacuum Pumps.

Section 2, Catalogue No. 12, of the American Steam Pump Co. of Battle Creek, Mich., is entitled Marsh Tank and Vacuum Pumps. It tells about a special adaptation of the Marsh for use in connection with condensing apparatus of either the jet or surface type, or a combination of the two. The various features ensuring economy, reliability, durability, effectiveness and other desirable properties are explained fully. Send for this new illustrated catalogue.

New Pump Publication.

The Knowles Steam Pump Works, 114 Liberty street, New York city, is distributing Bulletin K-73, describing its recently designed "Express" pump. This pump is of the reciprocating type, and is directly connected to an electric motor without gears or belts, and a 250-gallon pump runs at a speed of 300 revolutions per minute. In a test, the details of which are given, this pump showed an efficiency of 93 per cent. Pumps of this type are built in capacities of from 200 to 400 gallons per minute, and for heads from 100 to 2000 feet.

Electrical and Steam Machinery Bargains.

It is a well-known fact that numerous manufacturers and others who use electrical and steam machinery and other kinds of mechanical equipment often find second-hand equipment will serve their purpose. This has brought about the development of a large business in second-hand machinery, among the specialists being Joseph H. Thompson, Jr., of 619 Bowling Green Building, 11 Broadway, New York. Mr. Thompson has issued his Bargain List No. 2, telling about the electrical and steam machinery which he offers at attractive prices for immediate delivery. Send for leaflet.

Ryerson's Monthly Journal.

Among the trade publications the contents of which are of considerable interest is Ryerson's Monthly Journal. In every issue it contains articles of timely value to the industrial world, besides presenting standard information of value. Its July number includes "Fuel Formulas," "Railway Master Rollermakers' Convention," "New Vertical Water-Tube Boiler," "Model Sheet-Metal Working in Dies," "Dayton Self-Feed Tube Cutters," etc. Messrs. Joseph T. Ryerson & Son of Chicago, New York and Pittsburgh issue the journal. They are among the most

extensive dealers in boilers, engines, large machinery, tools, iron and steel products, etc.

The Merry Merry-Go-Rounders.

Among the well-known American manufacturers who annually join their employees in a general merry-making is the Herschell-Spillman Company of North Tonawanda, N. Y. In inviting its employees to the 1904 gathering this company issues a "Summons and Complaint" wherein the various features are referred to in a humorous manner. Doubtless those who attend this fourth annual outing of the Herschell-Spillman Company will be more than amply rewarded for their presence. The company is known throughout the United States as amusement outfitters to their majesties the public. It builds merry-go-rounds and other amusement devices.

The Spirit of Progress.

The spirit of progress is exemplified in the advances made by the National-Acme Manufacturing Co. in the production of its Acme Multiple-Spindle Full Automatic Screw Machine and Semi-Automatic Screw-Slotting Machines. A large number of these machines are in operation in the company's product department, and during the past 12 months they have converted upwards of 5,000,000 pounds of iron, steel and brass into finished product. The company's pamphlet, entitled "The Spirit of Progress," tells all about the machines and illustrates them. All manufacturers who are interested in the production of screws should examine the "Acme Automatic Machines."

A Superior Fireproof Window.

Among recent contracts, placed in the effort to further fireproof construction of buildings, was that which was awarded for

sold under the name of U S Roofing, the U S meaning universal satisfaction, unquestionable superiority, unusually successful, undoubtedly standard, etc. A complete description of this new roofing is presented in the manufacturer's leaflet now being distributed. Men who are interested in improved roofings are invited to address the Lincoln Waterproof Cloth Co., manufacturer of the U S Roofing, for a copy of the leaflet. Offices and plant at Bound Brook, N. J.

Well-Drilling and Prospecting Machinery.

The Austin Manufacturing Co. of Chicago, Ill., has issued its catalogue of well-drilling and prospecting machinery. It manufactures 12 styles of portable well machines of a capacity from 250 to 2500 feet, also the standard stationary oil derrick rigs of a capacity to 3500 feet, besides various tools, supplies, etc. All the company's machinery is adapted to the circumstances under which it is to be used. The size and probable depth of wells and the kind of earth formations, whether rock, clay, sand or gravel, are all to be considered in selecting an outfit. Over 1000 Austin machines are in use, and they are affording their owners that satisfaction which continually brings the Austin Manufacturing Co. repeat orders and new customers who become acquainted with them. Send for Edition B, Catalogue No. 4.

The Paint Question.

The chief importance in the matter of paints is their value—that is, their relative adaptability to the ends they are intended to serve. The use of paint is twofold—to protect the surface to which it is applied, and incidentally to render such surface more pleasing to the eye. Modern paint chemistry and technical experience made it quite pos-

sible, so that the most inexperienced person may be enabled to buy and use an oilstone understandingly. No article among a mechanic's tools is of greater importance to him, for no matter how good the quality of his edge tools may be, they cannot do work unless properly sharpened. The loss in damaged tools and wasted time resulting every year from the use of inferior or unsuitable oilstones is enormous, far exceeding, doubtless, the cost of all oilstones sold. Notwithstanding this fact, but few mechanics, and still fewer dealers, understand the particular merits of the different oilstones, or how to select them for different purposes. All these points are discussed in the pamphlet mentioned. The Pike Manufacturing Co., Pike, N. H., can supply copies of the pamphlet.

Piping Engineers and Contractors.

The Pittsburgh Piping & Equipment Co. is issuing a pamphlet which calls attention to the facilities it maintains for acting as piping contractors, engineers and machinists. It furnishes and erects complete piping systems of all kinds, and among the hundreds of industrial companies for whom it has installed such systems are the best known and most careful manufacturers and other industrial companies of the entire country. Steam-heating and power plants, exhaust and condensing systems, hydraulic systems for all pressures, oiling and oil-filtering systems, screwed and flanged fittings, gate and globe valves, hydraulic valves and fittings, etc., may be briefly referred to as products of the company. For estimates on construction work of the kind noted or for literature that will be a guide to the company's abilities in this direction address the main offices in the Westinghouse Building, Pittsburgh, Pa. The principal Southern office is with W. H. Hume & Co. in the Woodward Building, Birmingham, Ala.

W. D. Allen Manufacturing Co.

A more than usually comprehensive catalogue of mill and factory machinery and supplies is that of the W. D. Allen Manufacturing Co. of 151 Lake street, Chicago. The catalogue is one of the most complete of its kind ever issued, containing over 500 pages and listing more than 700 articles, including belting, engines, boilers, pumps, steam specialties, machine tools, hardware specialties, etc., all of the best-known makes that have proven successful in industrial activity. The W. D. Allen Manufacturing Co. lists all these products, as well as a number of its own specialties, gives complete tables of sizes, capacities, prices and other details where required for intelligent selection and to estimate the expenditure involved. Besides maintaining its general offices at 151 Lake street, the Allen Company has large factories at 413, 415 and 417 Fifth and 1097 to 1103 Western avenue in Chicago, where large stocks are always held for prompt shipment to the purchasing public in the mill and factory field. This company is one of the largest of its character in the West, and is catering to a large and rapidly increasing trade. Southern buyers are invited to send for catalogue, with a view to placing contracts. William D. Allen is the company's president; C. Frank Bowles, vice-president; Edward H. Pease, treasurer, and Thorval L. Ryerson, secretary.

Modern Sanitary Plumbing Appliances.

During the past few years great progress has been made in the science of sanitary plumbing and in the manufacture of sanitary appliances. The steadily increasing demand for the better grade of material and fixtures necessary for the proper equipment of the modern toilet and bathroom is especially encouraging to those engaged in the manufacture of such goods. As a result of this encouragement, many improvements and new ideas have been developed and are embodied in the multitude of fixtures and appliances now on the market and offered to architects, contractors, dealers and users. In this branch of production, as in thousands of others, the American manufacturer stands foremost, and his sanitary plumbing specialties find their way to installation in all classes of buildings throughout the entire world. Among American manufacturers probably none is more prominent or better known than the Haines, Jones & Cadbury Company of Philadelphia, Pa. This company offers to purchasers only such fixtures as are sanitary in the strictest sense, and have proven their efficiency after a reasonable period of trial. It has issued a comprehensive catalogue, in which it has endeavored to show not only the luxurious appliances required in the more expensive residences, but also those of moderate cost, which are gaining steadily in popular demand, and which go far toward properly fitting up the ideal American home.

The Rebuilding of Baltimore---How the Daily Bulletin is Covering It.

More Accurate Than Anything Seen.

FRANK B. GILBRETH, M. Am. Soc. M. E.
General Contractor for Architectural and Engineering Construction.
Boston: 176 Federal Street. New York: 34 W. 26th Street.
Baltimore Office: 211 N. Liberty Street.

Baltimore, Md., May 28, 1904.

Manufacturers' Record Publishing Co.

Gentlemen—I am pleased with the opportunity to say to you that the service furnished through the *Daily Bulletin* is more accurate than any information of a like character that I have seen. This is in view of the fact that correct information is hard to obtain in this territory.

I am glad of the further opportunity to thank you for news of a private nature that you have furnished me without complaint or question.

Very truly,
FRANK B. GILBRETH,
By F. F. Webber, Engineer.

the Wanamaker store in Philadelphia. The contract calls for 2500 Lupton wireglass windows with an area of 115,000 square feet. A circular now being issued in reference to the Lupton window states that the manufacturer is prepared at any time to demonstrate its perfectness of design and superiority of construction and to prove the dependability and desirability of the automatic closing device connected with the window named. If you want evidence, write the David Lupton's Sons Company, Allegheny avenue and Tulip street, Philadelphia, or the New York office at 220 Broadway.

Cold-Saw Cutting-Off Machines.

The Diamond Drill & Machine Co. of Birdsboro, Pa., announces that it has secured the sole rights to manufacture and sell the Wagner Cold-Saw Cutting-Off Machine and Automatic Saw Sharpener in the United States and Canada. It believes that their introduction into structural shops, car shops, machine shops, steel-casting plants, etc., in this country will materially facilitate the handling of the class of work done by the machines. The machines are simple and rigid in construction, and well adapted to any work within the capacity of the tool. Each type is built in seven sizes, with beds to suit all requirements, the smallest machines cutting two and one-half-inch and the largest 13-inch round forgings or steel castings. Send for booklet giving full details.

U S Roofing.

The great success attending the introduction of Lincoln Flint Coated Roofing and Watchungset Roofing induced the manufacturer thereof to continue careful experiments with a view to still further improving those products. This has resulted in the bringing out of an entirely new and original brand,

sible to combine these two elements of paint value without impairment of either. An explanation of how the best results can be obtained is readily gleaned by a perusal of the booklet entitled "The Paint Question: A Practical Treatise on the Selection and Use of Paint for Property Owners, Painters, Architects and Paint Manufacturers." The booklet is by Stanton Dudley, author of "Paint Talks," and a copy can be obtained by addressing the New Jersey Zinc Co., 71 Broadway, New York.

Dexter Automatic Press-Feeding Machines.

The Dexter Folder Co. of Pearl River, N. Y., considers the advances made by it during 1903 in the development of feeding machinery was of more importance than during any like period in the 10 years that the machines have been on the market. The 1904 feeder is made from an entirely new pattern, with a view of having the design and plan of the machine in perfect harmony with all of the latest improvements. It will be conceded that far more satisfactory and harmonious results can generally be obtained by building an entirely new pattern machine, combining all the improvements, than adding new features to an old machine. All progressive printers will be interested in the Dexter Catalogue D, now ready for distribution. The publication is fully illustrated, and describes the feeding machines as used for all classes of feeding, and attached to all makes of presses, for finest color work, label work, etc.

Oilstones: Selection and Use.

A pamphlet has been issued the object of which is to give a few practical selections on the selection, use and care of oilstones. It aims to do this in the briefest and plainest manner

The catalogue mentioned is one of the most complete trade publications ever issued. It is a cloth-bound volume, 9x11 inches in size, containing over 700 pages of descriptive text and pictures. Its photographic illustrations, its price-lists, telegraphic code and other data are so full as to leave nothing wanting that will aid buyers in the selection and ordering of supplies either in small or large quantities. The Haines, Jones & Cadbury Company, manufacturer and dealer in sanitary plumbing fixtures and water, steam and gas supplies, has its general offices and show-rooms at Nos. 1128 to 1144 Ridge avenue, Philadelphia, Pa., with main factory and warehouses at the same address; also at 1105-1109 Buttonwood street and 503-513 North 12th street, besides a large iron foundry at Norristown, Pa.

The Buckeye Engine.

Over 50 years ago the members and official staff of the Buckeye Engine Co. began their experience in engine-building. During the period indicated the Buckeye engine has been added to and improved from time to time in order to perfect its capabilities. Changes of proportion have been made when necessary, parts have been strengthened and other betterments have been adopted, but the inherent merits of the principles involved and the high grade of workmanship employed have secured for the Buckeye engine from the first a steadily-growing popularity. The Buckeye Engine Co.'s catalogue illustrates and describes fully the company's product, dwelling especially upon the particular advantages of its balanced valve, reduced clearance, two ports, safety, simplicity, cut-off equalization, good regulation and other features. The company has built engines ranging from 15 to 8000 horse-power. Its simple engines are designed for steam pressures of 125 pounds and above, and on special orders have been built for pressures as high as 180 to 200 pounds. To meet the requirements of the times Buckeye engines have been designed for heavy duties. The standard horizontals are built in three classes, this, however, only referring to speed, and does not in any way affect construction, all having the same general design, workmanship and finish. Vertical and horizontal vertical are designed for heavy duties and for high, medium and low speeds. Inquiries to the Buckeye Engine Co. at its main offices and plant, Salem, Ohio, will receive prompt attention.

Across the Alleghenies.

In this great country of ours, with its wealth of scenic attractions and thousands of resorts and points of interest, many of them of international reputation, it is not strange that some of the finest bits of scenery, some of the most noble and impressive works of nature, have been overlooked. Many of these are in the country across the Alleghenies, and an illustrated booklet calling attention to them has been issued for the information of seekers after rest, recreation, homes or investments. The country traversed by the line of the West Virginia Central & Pittsburgh Railway Co. is a revelation to the traveler and tourist. Much of it is through and over the great Alleghany mountains, cutting its way through virgin soil and opening up a practically new, untrodden and undeveloped country. The numerous mountain streams and dense forests show at once to the practiced eye of the sportsman what possibilities are contained in this paradise for gunners and fishermen. Game, both large and small, abounds, and the mountain trout is as game a fish as ever tried the strength and skill of a disciple of Isaac Walton. The special attention of investors and manufacturers is called to the section in question. The soil is rich and productive, rapidly-growing towns are numerous, vast and valuable timber tracts await the lumberman, and numerous rich deposits of coal and other minerals await development. Among well-known cities on the West Virginia Central & Pittsburgh is Davis, 2000 feet above sea level, also Thomas, Parsons, Elk and others. The great industrial developments of recent years in the State of West Virginia are familiar to readers of the Manufacturers' Record. "Across the Alleghenies" is the title of the publication above referred to. It contains a description of the country mentioned, and presents pictures of various scenic localities in West Virginia. It is issued by the Passenger Department of the West Virginia Central & Pittsburgh Railway Co., and copies can be obtained by addressing B. H. Griswold, General Traffic Manager, or F. M. Howell, General Passenger Agent, Baltimore, Md.

Westinghouse Industries at St. Louis.

Since the founding of the first Westinghouse industry, less than 40 years ago, there have been added to it from year to year other interests of a kindred nature, until to-

day the name of Westinghouse represents a vast chain of mechanical enterprises in Europe as well as America. With the very best talent obtainable, these companies ever have been in the front rank in the development of mechanical appliances. Today there is scarcely a point in the civilized world where the Westinghouse product in some form is not in use. Almost everyone who travels is familiar with the great advancements in speed, safety and comfort attributable to the Westinghouse brake and switching and signalling devices. The Westinghouse electrical product embraces apparatus of almost every known application, and is well known wherever electrical energy is used. Westinghouse steam turbines, gas engines and steam engines are in successful operation in most of the large power plants in the country. A typical example of the combined product of the electric and machine interests may be seen in the large service plant of the St. Louis World's Fair. This plant was designed and installed by the engineering and contracting firm of Westinghouse, Church, Kerr & Co. In and about St. Louis and the exhibition grounds are many typical Westinghouse installations. The Fine Arts Building is lighted by 5000 Nerst lamp glowers. The main part of the Machinery Building is lighted by Bremer arc lamps. The passenger trains and steam locomotives on the railroads entering St. Louis are controlled by the Westinghouse airbrakes. One thousand street cars, equipped with Westinghouse airbrakes, driven by Westinghouse motors and supplied with 20,000 horse-power of electrical energy from Westinghouse generators, are operated in St. Louis over 400 miles of track. The tracks of the railroads entering the Terminal Station, one of the largest in the world, are protected by the safety electro-pneumatic interlocking signal system of the Union Switch & Signal Co. The exhibits of the Westinghouse companies in the Transportation, Electricity and Machinery and Electricity Buildings cannot fail to be of interest to those concerned in the development, application and control of power, as well as the various individual exhibits showing specimens of product and working models. An object of great interest is the Westinghouse Auditorium, seating 350 persons, where free exhibits of Westinghouse installations and operations are given at frequent intervals in moving and stereopticon pictures. Two of the companies that now deserve special notice are the Nerst Lamp Co. and the Cooper-Hewitt Electric Co., each manufacturing a light that represents a radical departure from established practice, and destined to become an important element in the illuminating field. An illustrated booklet about the Westinghouse exhibit has been issued by the Westinghouse Companies' publishing department, offices at Pittsburgh, Pa.

FINANCIAL NEWS

Review of the Baltimore Market.

Office Manufacturers' Record.

Baltimore, Md., July 27.

Atlantic Coast Line common surprised the Baltimore stock market during the past week by taking a sudden leap of six points upward, in sympathy with an advance in New York, but only a fraction of the increase was held. Another feature was a rise of two points in Consolidated Gas and a great falling off of trading in United Railways income bonds, which declined, as did the common stock. The 4 per cent. bonds were about steady, as were Seaboard and Cotton Duck, while G. B. S. Brewing issues were easy. Only a fair amount of business was done in investment securities, which, however, continue steady.

In the trading United Railways common went from 7 $\frac{1}{2}$ to 8 $\frac{1}{2}$, but lost nearly all the gain; the incomes dropped from 48 $\frac{1}{2}$ to 47 $\frac{1}{2}$, and the 4s sold between 91 $\frac{1}{2}$ and 92 $\frac{1}{2}$; United Light & Power preferred changed hands at 34 $\frac{1}{2}$ and 35, the 4 $\frac{1}{2}$ s at 82 $\frac{1}{2}$; Consolidated Gas between 74 $\frac{1}{2}$ and 77, the 6s at 100 $\frac{1}{2}$, and the 5s at 113 $\frac{1}{2}$ and 113 $\frac{3}{4}$; Seaboard common from 8 $\frac{1}{2}$ to 9 $\frac{1}{4}$, the preferred at 16 $\frac{1}{2}$, the 4s at 69 $\frac{1}{2}$ to 70, the three-year 5s from 87 to 89, reacting to 88; Cotton Duck common at 2 $\frac{1}{2}$ and 2 $\frac{3}{4}$, the 5s at 59 $\frac{1}{2}$ to 61; United States Cotton Duck at 3; G. B. S. Brewing common from 6 $\frac{1}{2}$ to 6 $\frac{3}{4}$, the incomes from 23 $\frac{1}{2}$ to 24 $\frac{1}{2}$,

the firsts from 53 $\frac{3}{4}$ to 54, reacting to 53 $\frac{1}{2}$.

Bank stocks sold as follows: Howard, 11; Farmers' National Bank of Maryland, 41 $\frac{1}{4}$; Commercial and Farmers', 100; Union, 118 $\frac{1}{2}$; Merchants', 170. Mercantile Trust sold at 132; Union Trust at 35; United States Fidelity at 102, and Fidelity & Deposit at 128 and 130.

Other securities traded in were as follows: Atlantic Coast Line common, from 122 down to 118; do. Consolidated 4s, 98 $\frac{1}{2}$ to 98 $\frac{3}{4}$; do. new 4s, certificates, 91; Virginia new 3s, 94 $\frac{1}{2}$; Georgia, Carolina & Northern 5s, 107 $\frac{1}{2}$ to 109 $\frac{1}{2}$; City & Suburban 5s (Baltimore), 113 and 113 $\frac{1}{2}$; City & Suburban 5s (D. C.), 103; Richmond Traction 5s, 103; Alabama Consolidated Coal & Iron preferred, warrants, 4, 3 and 2; Alabama Consolidated Coal & Iron preferred, 55; Maryland Telephone 5s, 85 to 86; Baltimore City 3 $\frac{1}{2}$ s, 1930, 107 $\frac{1}{2}$; Florida Southern 4s, 95 $\frac{1}{2}$ to 95; Georgia & Alabama Consolidated 5s, 102 $\frac{1}{2}$ to 104 $\frac{1}{2}$; Georgia Southern & Florida 5s, 114 $\frac{1}{2}$ and 114 $\frac{1}{4}$; B. & O. 3 $\frac{1}{2}$ s, 94 $\frac{1}{4}$; Wilmington, Columbia & Augusta 6s, 109 $\frac{1}{2}$; Baltimore City Passenger 4 $\frac{1}{2}$ s, 102 $\frac{1}{2}$; Northern Central stock, 83 to 84; Anacostia & Potomac 5s, 100 $\frac{1}{2}$ to 101 $\frac{1}{4}$; West Virginia Central 6s, 110 $\frac{1}{2}$; Charleston Consolidated Electric 5s, 85 to 85 $\frac{1}{4}$; North Carolina 4s, 103; Alabama Consolidated Coal & Iron 5s (when issued), 64 $\frac{1}{2}$; Virginia deferred, Brown Bros.' certificates, 6 $\frac{1}{4}$; Northern Central 4 $\frac{1}{2}$ s, 112; Tennessee Settlement 3s, 96; North Baltimore 5s, 120; Norfolk & Carolina 5s, 116 $\frac{3}{4}$; North Carolina 4s, small, 102; Atlantic Coast Line of Connecticut, 250.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended July 27, 1904.

Railroad Stocks.	Par.	Bid.	Asked.
Georgia Southern & Florida.....	100	31	45
Georgia Sou. & Fla. 1st Pref.....	100	95	100
Georgia Sou. & Fla. 2d Pref.....	100	62	70
United Railways & Elec. Co.....	50	7 $\frac{1}{2}$	8
Seaboard Railway Common.....	100	9	9 $\frac{1}{2}$
Seaboard Railway Preferred.....	100	16 $\frac{1}{2}$	17
Norfolk Railway & Light.....	25	78 $\frac{1}{2}$	79
Atlantic Coast Line.....	100	116 $\frac{1}{2}$	117 $\frac{1}{2}$
Atlantic Coast Line of Conn.....	100	250	260

Bank Stocks.	Par.	Bid.	Asked.
Citizens' National Bank.....	10	25	27
Commercial & Far. Nat. Bank.....	100	100	100
Producers & Mech. Nat. Bank.....	100	310	310
Farmers & Mer. Nat. Bank.....	100	102 $\frac{1}{2}$	110
German Bank.....	100	103	103
German-American Bank.....	100	103	103
Merchants' National Bank.....	100	103	103
National Bank of Baltimore.....	100	108	120
National Bank of Commerce.....	15	23	25
National Howard Bank.....	10	10 $\frac{1}{2}$	10 $\frac{1}{2}$
National Marine Bank.....	20	30	35
National Mechanics' Bank.....	10	31	31
National Union Bank of Md.....	100	117	120
Second National Bank.....	100	182	190
Third National Bank.....	100	125	125
Western National Bank.....	20	36	40

Trust, Fidelity and Casualty Stocks.	Par.	Bid.	Asked.
Baltimore Trust & Guaranty.....	100	247 $\frac{1}{2}$	247 $\frac{1}{2}$
Central Real Estate & Trust.....	50	50	50
Continental Trust.....	100	102	106
Fidelity & Deposit.....	50	120	125
Mercantile Trust & Deposit.....	50	131	135
Union Trust.....	50	32 $\frac{1}{2}$	40
U. S. Fidelity & Guaranty.....	100	100	102

Miscellaneous Stocks.	Par.	Bid.	Asked.
G. B. & S. Brewing Co.....	100	6	6 $\frac{1}{4}$
United Elec. L. & P. Pref.....	50	32	35
Cotton Duck Voting Trust.....	100	2 $\frac{1}{2}$	3
Consolidated Coal.....	100	76 $\frac{1}{2}$	76 $\frac{1}{2}$
George's Creek Coal.....	100	84	84
Consolidated Gas.....	100	76	77

Railroad Bonds.	Par.	Bid.	Asked.
Albany & Northern 5s.....	91 $\frac{1}{2}$	92 $\frac{1}{2}$	92 $\frac{1}{2}$
Atlanta & Charlotte 1st 7s, 1907.....	100 $\frac{1}{2}$	98 $\frac{1}{2}$	99
Atlantic Coast Line 4s.....	100	114 $\frac{1}{2}$	114 $\frac{1}{2}$
Char. Col. & Aug. 1st 5s, 1910.....	110	110	110
Char. Col. & Aug. 2d 7s, 1910.....	110	110	110
Columbia & Greenville 1st 6s, 1916.....	114	114	114
Georgia, Car. & North. 1st 5s, 1929.....	109	109 $\frac{1}{2}$	109 $\frac{1}{2}$
Georgia South. & Fla. 1st 5s, 1945.....	114	114 $\frac{1}{2}$	114 $\frac{1}{2}$
Georgia Pacific 1st 6s, 1922.....	121	123 $\frac{1}{2}$	123 $\frac{1}{2}$
Petersburg, Class A 5s, 1925.....	111	111	111
Petersburg, Class B 5s, 1925.....	123	123	123
Piedmont & Cum. 1st 5s, 1911.....	106	106	106
Raleigh & Augusta 1st 6s, 1926.....	120	121 $\frac{1}{2}$	121 $\frac{1}{2}$
Richmond & Danville Gold 6s, 1915.....	115	115	115
Savannah, Fla. & West. 5s, 1934.....	113	113	113
Seaboard & Roanoke 5s, 1926.....	107 $\frac{1}{2}$	107 $\frac{1}{2}$	107 $\frac{1}{2}$
Southern Railway Con. 5s, 1994.....	113	113	113
Virginia Midland 1st 6s, 1906.....	104	104	104
Virginia Midland 2d 6s, 1911.....	113 $\frac{1}{2}$	114 $\frac{1}{2}$	114 $\frac{1}{2}$
Virginia Midland 3d 6s, 1916.....	115	115	115
Virginia Midland 4th 5-5s, 1921.....	110	110	110
Virginia Midland 5th 5s, 1926.....	112	114	114
West. North Carolina Con. 6s, 1914.....	114	114	114
West Virginia Central 1st 6s, 1911.....	110 $\frac{1}{2}$	111	111
Wilmington, Col. & Aug. 6s, 1910.....	118	118	118
Wilmington & Wel. Gold 5s, 1935.....	114 $\frac{1}{2}$	114 $\frac{1}{2}$	114 $\frac{1}{2}$
Charleston City Railway 5s, 1923.....	104 $\frac{1}{2}$	104 $\frac{1}{2}$	104 $\frac{1}{2}$
Charleston City Electric 5s, 1929.....	84	84	84
Knoxville Traction 1st 5s, 1928.....	105	105	105
Norfolk Street Railway 5s, 1941.....	105	105	105
Norfolk Railway 1st 4s, 1949.....	92 $\frac{1}{2}$	93	93
United Railways Inc. 4s, 1949.....	47 $\frac{1}{2}$	47 $\frac{1}{2}$	47 $\frac{1}{2}$

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Seaboard 3-year 5s.....	87 $\frac{1}{2}$	88
Lexington Railway 1st 5s.....	98 $\frac{1}{2}$	101
Richmond Traction 5s.....	103	105 $\frac{1}{2}$
Norfolk Railway & Light 5s.....	79	79
Chattanooga Electric 6s.....	88	88
Macon Ry. & L. 5s.....	90 $\frac{1}{2}$	90 $\frac{1}{2}$
Atlanta St. Ry. 5s.....	105 $\frac{1}{2}$	105 $\frac{1}{2}$
Georgia & Alabama Con. 5s.....	104	104 $\frac{1}{2}$
South Bound 5s.....	107 $\frac{1}{2}$	107 $\frac{1}{2}$

Miscellaneous Stocks.

Mt. V. & Woodby's Cot. Duck 5s.....	61	61 $\frac{1}{2}$
Mt. V. & Woodby's Cot. Duck Inc. 12 15	12	15
G. B. & S. Brewing 1st 3-4s.....	53 $\frac{1}{2}$	53 $\frac{1}{2}$
G. B. & S. Brewing 2d Income.....	24 $\frac{1}{2}$	24 $\frac{1}{2}$
United Elec. Light & Power 4 $\frac{1}{2}$ s.....	82 $\frac{1}{2}$	82 $\frac{1}{2}$
Consolidated Gas 6s, 1910.....	109 $\frac{1}{2}$	109 $\frac{1}{2}$
Consolidated Gas 5s, 1939.....	113 $\frac{1}{2}$	113 $\frac{1}{2}$

New Corporations.

The Bank of Batesville, Miss., has opened a branch at Hope, Miss., with J. E. Logue as manager.

The Ducktown Banking Co. of Polk county, Tennessee, has been chartered with \$10,000 capital.

The Bank of Gibson of Gibson, N. C., has been chartered, with \$16,000 capital, by W. P. Pate and others.

The Bank of Grundy has begun business at Grundy, Buchanan county, Virginia, with \$50,000 capital. J. H. Stinson is president, and W. T. Dennie, cashier.

A new national bank is reported organizing at Del Rio, Texas; capital \$50,000. Among those interested are J. McLymont, Judge J. G. Griner of Del Rio, and George Hobbs of Spofford.

[For Additional Financial News See Pages 32 and 33.]

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